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SATURDAY, MARCH 20, 1909

VOL. II

NO. 1

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Volume II

SATURDAY, MARCH 20, 1909

Number 1

HOW THE FOREIGN SHIP TRUST GRAFTS UPON THE WESTERN PRODUCER.

By JOHN A. PENTON.

There never has been in political history a stranger example of public men standing in their own light and striking at the welfare of their constituents than that presented by those Representatives in Congress from the middle West who have voted of late years against the Roosevelt plan of aiding and encouraging American steamship lines to South America and the Orient.

Mr. Taft has pointed out that the upbuilding of our ocean shipping is the one thing in which the Republican party has failed to keep its promises to the people. It has failed because a few Representatives of middle Western states have joined the solid Democratic opposition to defeat the recommendations of the President and the pledges of the Government. These statesmen apparently have assumed that the building and maintenance of ocean steamships was an industry which benefited only the seaboard states on the Atlantic and Pacific. As a matter of fact, Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa, Minnesota and Nebraska have more to gain through the service of an adequate American ocean fleet than any other section of the nation.

Why is this so? Because these middle Western states, together with the cotton states of the South, produce most of the commodities which the United States sends over seas to foreign customers. We are dependent now on our rivals in trade to deliver these American goods; and our European and Asiatic rivals are keen to take advantage of their opportunity.

The great department stores of Chicago, Cincinnati, St. Louis, Milwaukee and Omaha do not depend upon rival stores across the street for their delivery service. The great newspapers of these cities would not dream of permitting their competitors to handle their circulation. Every man of business knows that, so long as human nature is what it is, his rival will never give him as good a delivery service at as low rates as he provides for his own goods.

This is exactly so in our trade with South America and the Orient. The merchants and manufacturers of Europe, who own all the few and poor ships that ply between our ports and Brazil and Argentina, take good care to see that it costs more to send a case of American machinery or a barrel of flour to Rio Janeiro or Buenos Ayres from New York than it costs to send a like commodity from Great Britain or the Continent.

So on the Pacific, where British and Japanese subsidized competition is at this very moment driving off the last American ships. When our ships have gone, these foreigners will step in and form combinations to squeeze our export trade for all that it is worth.

Do you doubt this? It is exactly what has happened on the Atlantic Ocean. A few weeks ago the newspapers announced a meeting in London of the foreign companies that monopolize the carrying trade between our ports and South America to arrange a trust or "combine" and increase freight rates. This meeting was presided over by the head of the Hamburg-American Co.,

the greatest German shipping line, which took fast steamers out of its New York service in our war with Spain and sold them to the Spanish Admiralty to "burn, sink and destroy" the commerce of the American nation.

This European ship trust has advanced rates from 50 to 100 per cent within a short time on the provisions and other products of the Mississippi Valley. Those few middle Western Congressmen who voted against President Roosevelt and in favor of defeating the ocean mail bill last May unwittingly, perhaps, but none the less surely, betrayed the interests of their people.

Another European ship trust that dominates the carrying trade between our Pacific Coast and Europe has raised freights on the Pacific more than 400 per cent and wrung its profits out of the pockets of our Western wheat growers. There is another European steamship trust in our trade with the Philippine Islands. The Stars and Stripes float over Manila Bay, but an American ship cannot get a homeward cargo in Manila harbor, and the last two steamships in this trade are just being withdrawn.

President Roosevelt regards the rebuilding of our merchant navy as second in importance only to the construction of the Panama Canal. Judge Taft in his address of acceptance declares strongly in favor of the immediate enactment of the ocean mail bill, which was halted by the opposition of thirty odd middle Western men at the last session of Congress. This bill provides for swift and regular steamship communication under the American flag with the chief countries of South America, with Japan, China, the Philippines and Australasia. It does not propose to give one dollar to fast passenger ships to Europe, and the total expenditures under it are limited expressly to the present net profits of our ocean mail service, or about \$3,600,000 a year.

This bill, if it is enacted, will break the grip of the greedy European ship trusts. It will enable us to deliver our own goods to our own customers. It will increase the sales of the flour of the Northwest, the provisions of Nebraska, Kansas and Iowa, the machinery of Cleveland, Chicago, Detroit, Cincinnati, St. Louis and Kansas City. Eastern labor and capital may build these ships, but they will carry chiefly Western cargoes. The Western men who fail to stand by President Roosevelt and Judge Taft but vote as the foreign ship monopolists would have them, against this ocean mail bill, are, as I have said, deliberately, and as I now say again, betraying the interest of their constituents.

ENGINEERS ON CANAL.

Full Text of the Report of the Special Board of Engineers Submitted to Congress by the President.

Washington, February 16, 1909.

Sir: In accordance with your instructions, we have visited the isthmian canal, in company with Hon. William H. Taft, and have examined the work in progress and the plans for the structures as far as now developed.

We have given especial consideration, under the instructions of Mr. Taft, to the foundations for the Gatun dam, and the feasibility of constructing and maintaining thereon a safe dam

for retaining water at eighty-five feet above sea level.

We have examined the slides in the banks of the canal and the surveys, plottings and sections that have been made of them. The subsidence in the fills in the toes of the dams and in the railway embankments has also been examined, and we have considered the effect of the qualities of materials thus disclosed upon the construction of the various works and upon their ultimate stability.

We have also considered the evidence that has been accumulated as to the permeability of the different materials and the possible loss of water by percolation through the bed and banks of the future Gatun Lake; and the question whether such loss of water by seepage would result in materially reducing the water supply or in undermining and ultimately crippling the structure.

Gatun Dam.

The Gatun earth dam is the central point of discussion, and we were instructed by Mr. Taft to give it first consideration in the light of all new evidence.

We are satisfied, both from the records of the experiments that have been made and from our own personal examination of the materials, as seen in cuts now open and as disclosed by samples from test borings, that there will be no dangerous or objectionable seepage through the materials under the base of the dam, nor are they so soft as to be liable to be pushed aside by the weight of the proposed dam so as to cause dangerous settlement.

We are also satisfied that the materials available and which it is proposed to use are suitable and can be readily placed to form a tight, stable and permanent dam.

The type of dam now under construction is one which meets with our unanimous approval. It is a combination of rock fill and hydraulic fill, in which the exterior faces are to be composed largely of rock of all sizes obtained from the canal excavation, dumped and laid on slopes much flatter than are ordinarily found in earth dams, while the interior of the great mass will consist of clayey material obtained by hydraulic dredging from large deposits at a little distance from the dam and carried by water through pipes to the places where it is to be used. The material as delivered is a mixture of earth and water. The material held in suspension slowly deposits, finally forming a solid, water-tight embankment. The pond necessarily maintained on the top of the dam during construction tests the embankment at all stages of its growth, searches out any weak points and leads to the closure of any voids or cracks.

The most practical question in the construction of the Gatun dam is the possible slipping and sliding of the materials underneath and in the body of the dam. The materials, speaking broadly, are of a clayey nature, generally impervious to water, but sometimes slipping when subjected to heavy unbalanced pressure or on high steep slopes when saturated with water. In this respect the materials differ radically from the sandy and gravelly materials which have been frequently used in the construction of other earth dams.

In order to build a dam of these clayey materials that will be stable and permanent, it is necessary that the slopes should be flatter than would be needed to secure the stability of a dam of siliceous, sandy or gravelly materials.

The evidence that has been accumulated as to the degrees of slope that are stable with these materials seems to us conclusive. The fact that the materials are slippery does not mean that a dam built from them is necessarily less stable than a dam built of materials that do not slip so easily. It does mean that, in order to secure stability and permanency, the dam must be built with a greater thickness at the bottom.

The dam as proposed is more than a third of a mile in horizontal thickness at its base, including the rock fill portions.

The design upon which the work is now being prosecuted abundantly fulfills the required degree of stability and goes far beyond the limits of what would be regarded as sufficient and safe in any less important structure.

As a matter of convenience and economy during construction, materials have been piled up on slopes much steeper than those contemplated in the finished work. Generally, the materials so placed have remained in position, but in some cases slips have occurred. The occurrence of these slips is of no serious consequence either in the practical execution of the work or in the ultimate stability of the structure. We can readily understand how incorrect deductions may have been drawn from these occurrences, especially by those not fully informed as to the character of the materials and the ample dimensions and much less steep slopes of the proposed structures in their final form.

We were requested to consider the proper height for the crest of the Gatun dam, and after consideration concluded that it could be safely reduced twenty feet from that originally

proposed, namely, to an elevation of 115 feet above sea level, or thirty feet above the normal level of the water against the dam. We are also of the opinion that the sheet piling recently proposed under the base of the dam may be safely omitted. The narrow cutoff trench now in progress through the upper earth stratum on Gatun Island and elsewhere and designed to be refilled with sluiced material should be continued.

Changes in these respects will facilitate the work of construction and will reduce somewhat the cost of the proposed work.

A full study of all the data at hand, and of the materials, and of the plans that are proposed with the above modifications, leaves no doubt in our minds as to the safe, tight and durable character of the Gatun dam.

Changes in Plan of Canal.

It was suggested to us by Mr. Taft that we give special consideration to those changes which have been made in the plans of the minority of the board of consulting engineers of 1905 since the adoption of the project.

Change in Position of Lower Pacific Locks.

One of the most important of these changes is the moving of the lower locks on the Pacific end of the canal from La Boca, on the shore of Panama Bay, to Miraflores, about four miles inland.

This change involved abandoning the construction of two earth dams at and near La Boca and the substitution of about four miles of deep-sea level channel 500 feet wide from La Boca to Miraflores in place of a wider channel through the lake that would have been created by the dams.

Before this change was made work had been commenced upon the toes of one of the dams. The material had been piled up to a considerable height on slopes steeper than were capable of being supported by the underlying material. Under these conditions settlements occurred with lateral displacement of some of the underlying material. Your board, after carefully inspecting the ground and the partially completed work, is of the opinion that these settlements cause no reason to doubt the stability of the proposed dams. We are unanimously of the opinion that stable and water-tight dams of substantially the proposed dimensions could have been constructed on the proposed sites without recourse to dredging out the underlying soft material.

The report of the minority of the board of consulting engineers of 1905 recognized that an objection might be made from a military point of view to placing locks on the shore of a bay, exposed to guns of hostile ships. We now understand that the controlling reason for the change was a military one. This change in the plans will result in an increase in cost of the canal by an amount judged from evidence at our disposal to be not less than \$10,000,000. We are informed, however, that this change would greatly lessen the cost of fortification.

Increased Width of Canal.

Another change is the increase of the minimum bottom width of the canal from 200 feet to 300 feet. This applies to a length of about 4.7 miles in the Culebra cut. We understand that this change will increase the cost of the work by about \$13,000,000. The work upon the excavation of the Culebra cut under the revised plan has now so far advanced that this widening will not delay the completion of the canal.

The widening will permit ships to pass one another in this portion of the canal, as they may under the original plan in all other portions, and will otherwise facilitate navigation through it.

If slides occur after the completion of the canal, the wider canal is not as likely to be blocked as a narrow one.

We understand that this change was authorized directly by you on the presentation of its advantages by the chief engineer, and we merely call attention to it as one reason for the increased cost of the canal.

Increased Size of Locks.

Another change is the increase of the dimensions of the locks from 95 by 900 feet to 110 by 1,000 feet. The increase in width, we understand, has been made in compliance with a request from the general board of the Navy Department, in order to allow the passage of the largest war vessels contemplated.

A large increase in cost is involved in these enlarged dimensions.

Changes in Breakwaters.

An important change is proposed in the location of the breakwater at the Atlantic end of the canal. The plan provisionally adopted by the board of consulting engineers of 1905, and adopted for the purpose of estimate by the minority of that

board, was for a breakwater generally parallel with the channel, which included less than one-third of Limon Bay; whereas the breakwater in the location now proposed will protect the entire bay and furnish a more commodious harbor not only for ships using the canal, but for all other shipping which makes use of the port. A considerable increase in cost is involved in this change.

We had an opportunity to view the present harbor during what is said to have been the only severe norther of the past two years, and have no doubt that a good breakwater is a desirable adjunct to the canal. We are not prepared to pass on the precise location, form or cost of this.

A change of less importance has been made at the Pacific end by relocating the dredged channel leading to deep water and increasing its width from 300 to 500 feet and by constructing a breakwater from the shore at La Boca to Naos Island with material excavated from the Culebra cut. This breakwater, now under construction, serves to prevent currents across the canal cut and tends to prevent deposits in the dredged channel and to increase the safety of navigation. The breakwater may also serve to carry a roadway to Naos Island. These changes involve some additional expense.



A SHIPLOAD OF FLAT CARS AT PIER II, CRISTOBAL.

On this pier President Roosevelt and Secretary Root held their farewell reception. The pier accommodates six ships.

Relocation of Panama Railroad.

The alignment of the Panama Railroad has been materially changed south of Gatun. This change was made because it was found that the swamp near the Gatuncillo River would not support the very high railroad embankment required, if made with ordinary slopes, and a line crossing at a point higher up the river was selected, which does not, however, materially increase the length of the railroad. The construction of the railroad will cost much more than was estimated by the minority of the board of consulting engineers, who were unable to procure surveys of the proposed location. The recent change in location affords more ample and convenient anchorage immediately above the locks.

Other Changes.

Some further changes or additions which have not yet been fully worked out have been mentioned to us as likely to be made as the work progresses, namely, the dredging out of a broad anchorage basin immediately downstream from the Gatun locks, another for anchorage and room for turning of long ships near La Boca, and possibly another just below the Miraflores locks. These can all be delayed until the completion of the main work of canal excavation and lock building, and then executed by the dredges that have done the main work. The work can thus be done without additional equipment and at a low price per cubic yard.

Present Condition of Work.

It has been suggested that we report upon the condition of the work and the progress being made, and, if found possible in the time at our disposal, upon the probable time of completion.

Organization.

We have seen the work under way on all parts of the canal. We have become acquainted with the engineers in responsible positions and have noted the organization and equipment.

It is our impression that the work is well organized and is being conducted energetically and well.

The work is done by day labor and not by the contract system.

The men are well paid, well housed, well fed and well cared for in case of sickness or accident. Houses, furniture, fuel, water, drainage and lights are furnished to employees without cost. Roads are built, schools supported and Young Men's Christian Association buildings provided, which are practically club buildings. Parts of the running expenses are also paid. The premises are cleared and drained and the grass kept cut. The climate is especially adapted to outdoor life, and the ample porches, entirely enclosed by bronze-wire screens, give the greatest facility for this. We are especially pleased with the architectural arrangements of the houses. They are admirably adapted to the climatic conditions.

Bachelor quarters and hotels furnishing meals at moderate prices are also provided by the Government.

Hospitals are provided, free medical attendance is furnished to employees, and medical attendance at low rates is supplied to families of employees.

A limited amount of free transportation, namely, one excursion trip each month to any station, is furnished on the Panama Railroad to employees, and half rates are given in all other cases, and also half rates to families of employees. Free transportation in some cases, and in all other cases transportation at reduced rates to and from the isthmus, is provided to employees and their families.

Six weeks' leave of absence each year, with full pay, is given to all monthly employees, and this includes not only office and engineering forces, but also the mechanical forces on the monthly basis.

The medical and sanitary department is especially to be commended for its success in exterminating yellow fever and controlling malaria, and for other measures which have made the isthmus a thoroughly healthful place in which to live.

The cost of the sanitary department, which represents the cost of keeping the isthmus healthful, amounts to about \$2,000,000 per year. This is a large sum, but the work is well done, and any decrease in the efficiency of the sanitary service might

readily prove disastrous to the prosecution of the main work.

We believe that in no other great construction work has so much been done for employees in the way of furnishing necessities, comforts and luxuries of life at the cost of the work as has been done in this case. This is one reason for the high cost of the canal.

Progress and Time of Completion.

We have examined diagrams and statistics showing the amount of work accomplished by years and by months since the work was taken over by the United States, and showing the amounts of the various classes of work remaining to be done and the estimated rates of progress and times required for completion. It has been impossible for us to check these in detail, but we have compared them with other estimates, and with the work obviously done, and they seem reasonable to us. In the light of this showing we see no reason why the canal should not be completed, as estimated by the chief engineer, by January 1, 1915; in fact, it seems that a somewhat earlier completion is probable if all goes well, but in view of possible contingencies it is not prudent at this time to count on an earlier date.

Cost of Work.

In examining the expenditures thus far made it must be borne in mind that large sums have been paid for steamships, dredges, steam shovels, locomotives, cars, tracks, shops and all the equipment that is necessary to prosecute a work of this magnitude, and also that large sums have been spent for dwellings, onces, buildings of various kinds, for waterworks, sewers, paving and other equipment, and that these expenditures have been made, in large measure, for the whole work, and that corresponding disbursements hereafter will be very much less in proportion than they have been to date.

Colonel Goethals has presented to us an estimate of the quantities of materials and the cost involved in the construction of the canal as now planned, including all disbursements thus far made and the estimated amounts required for completion. These cover the greatest width of excavation, the increased size of locks, the extra canal channel required by moving the Pacific locks from La Boca to Miraflores, the improved harbor arrangements at Colon and all other changes which have been adopted or which are now seriously contemplated. The payments to the New Panama Canal Company are included, and also the payments to the republic of Panama and the cost of sanitation and zone government, for which items the board of consulting engineers of 1905 stated that it presented no estimates.

The estimates and allowances so made seem ample to us. In some items it would seem that considerable reductions could be made, but, on the other hand, the work is large and novel and unforeseen contingencies must be expected, so that it may be that the aggregate estimate as presented is not too large.

After deducting \$15,000,000, representing the estimated receipts from the return of money loaned the Panama Railroad, and from the collection of water rates to cover the cost of municipal improvements made in Panama and Colon, and from miscellaneous sources, this present estimate of the complete cost of the lock canal amounts to \$360,000,000.

In making this estimate no reduction has been made for whatever salvage may be realized from the construction plant at the termination of the work, which plant has cost to date about \$30,000,000.

The cost of the canal as estimated in 1905 is frequently stated to be \$140,000,000, but this is incorrect, as the minority report expressly excluded sanitation and zone government and the payment to Panama and the French company had already been made. Adding these amounts, using the present estimates of sanitation and zone government, we have in round numbers the following:

Estimate of the minority of the board of consulting engineers for the cost of construction, exclusive of sanitation and zone government.....	\$140,000,000
Payments made to the republic of Panama and to the New Panama Canal Company.....	50,000,000
Sanitation and zone government, as now estimated..	27,000,000
Total	\$217,000,000

The difference between this cost and the total cost as now estimated is therefore \$143,000,000. Of this amount nearly one-half can be accounted for by the changes in the canal and appurtenant works to which we have already referred, and the remainder is to be attributed mainly to the higher unit cost of the different items of the work, caused in part by the higher prices for plant, supplies and labor which have prevailed in the United States since the estimate of 1905 was made, and which made it necessary to offer very high wages and special inducements in order to obtain the requisite force in a locality where the reputation for health was not good in the earlier years, in

part to the adoption of an eight-hour day for most of the work instead of a ten-hour day, in part to the much greater expenditure for housing and care of employees and for auxiliary works than was anticipated, and in part, in our opinion, to the evident purpose to make the estimates ample and to provide liberally for contingencies.

When the work at Panama is completed, in addition to having the canal, the United States will own the Panama Railroad and the steamship line operated in connection therewith.

Type of Canal.

In view of the fact that the cost of the lock canal, as now proposed, will largely overrun the estimate of the minority of the board of consulting engineers of 1905, and that the excavation in the Culebra cut is being made somewhat more rapidly than was anticipated, we have considered in a very general way the relative cost and time of construction of a sea level canal.

Most of the factors which have operated to increase the cost of the lock canal would operate with similar effect to increase the cost of the sea level canal, and at the present time there are additional factors of even greater importance to be considered as affecting the time of completion and cost of a sea level canal. One of these is to be found in the Gamboa dam, proposed to be nearly 200 feet in height above its foundations, which would be about sixty feet below the normal river level. Prior to the construction of this dam a long and deep diversion channel must be provided of far greater magnitude than that for the Gatun dam, which has been about two years in progress and is not yet completed.

Judging by the time required for the construction of dams of similar magnitude in the United States, it is probable that were work on the Gamboa dam to be started as soon as possible this one feature of the sea level project of the board of consulting engineers of 1905 could not be completed until after the time required for the completion of the lock canal. The construction of this dam at Gamboa for the control of the Chagres is an essential preliminary to the excavation of the sea level canal for the thirteen miles from Bohio to Bas Obispo.

Furthermore, in addition to the Gamboa dam, the sea level project provides for building for the control of tributary streams three large dams, the sites of which have not been examined.

Work is already far advanced on nearly all parts of the lock canal, and a change in the type would result in abandoning work done which represents large expenditure.

Under the plan now being carried out, the River Chagres and each of the other rivers on the isthmus tributary thereto is made an ally of the project. The waters of these rivers are handled economically and in such a way as to facilitate the operation of the canal. With the sea level project these rivers instead of being allies would be enemies of the canal, and floods in them would greatly interfere with the work.

The excavation of the canal would be carried to forty feet or more below sea level and to a much greater depth below the bottoms of the valleys in which the upper streams now flow.

It would further be necessary to cut long and large diversion channels on each side of the canal for streams entering the Chagres Valley. The cost of such lateral channels to protect the Culebra cut alone from the comparatively small streams formerly entering it, including work done by the French, has probably been not less than \$2,000,000. The channels required for the lower valley of the Chagres would be necessarily much longer, larger and far more expensive.

Rock Excavation Under Water.

Much has been said about the economy of excavating rock under water by modern appliances as compared with the cost of such excavation in the dry with steam shovels after blasting.

We concur in the opinion of those in charge of work at the isthmus that it is more economical, where the conditions are favorable, to excavate rock in the dry than by any under-water process now in use. Experience is not yet available to us which will justify the belief that, with the depth of cut and the quality of rock found on the isthmus, the general adoption of subaqueous methods would prove more expeditious or cheaper.

It is probable that more economical subaqueous methods will be sometime developed, but it would not be wise to base a change in plan of important work upon prospective results to be obtained by any method not yet thoroughly tried.

Earthquakes.

It has been suggested that the canal region is liable to earthquake shocks and that a sea level canal would be less subject to injury by earthquakes than a lock canal.

We have seen, in the city of Panama, the ruins of an old church, said to have been destroyed by fire, containing a long and extremely flat arch of great age, which convinces us that there has been no earthquake shock on the isthmus during the one hundred and fifty years, more or less, that this

structure has been in existence, that would have injured the work proposed.

Dams and locks are structures of great stability and little subject to damage by earthquake shocks. The successful resistance of the dams and reservoirs supplying San Francisco with water, even when those structures were located near the line of fault of the earthquake, gives confidence in the ability of well designed masonry structures and earth embankments to resist earthquake shocks.

We do not regard such shocks as a source of serious damage to any type of canal at the isthmus, but if they were so their effect upon the dams, locks and regulating works proposed for the sea level canal would be much the same as upon similar structures of the lock canal. The Gamboa dam for controlling the floods of the Chagres in connection with the sea level canal provides for a lake having an area of twenty-nine square miles when full, and if this water were suddenly let loose into the sea level canal it would seriously injure large portions thereof and wreck ships therein. A similar result would be reached if the other three dams of the sea level canal retaining lakes, having an aggregate area of ten square miles, were to be suddenly destroyed.

Water Supply.

We believe that the sufficiency of the water supply for a lock canal has never been seriously questioned. It is true that during the dry season the natural flow of the streams would not be sufficient to furnish the water required for numerous lockages. There would even be times when the natural flow would not suffice to make good the loss by evaporation from the surface of the water in Gatun Lake. During the rainy season there is a great excess of water which can be readily stored in Gatun Lake with its area of 163 square miles. It is proposed to fill this lake during the rainy season two feet above its normal level and to draw it as needed during the dry season. It is computed that by drawing it five feet below normal level, which draft would leave forty feet of water through Culebra cut, the supply in a dry year would be sufficient to serve from thirty to forty lockages up and an equal number of lockages down daily. Each lockage might consist of a single large vessel, or a fleet of smaller vessels capable of being in the lock at one time, as is common at Sault Ste. Marie. For comparison the published record shows that an average of only twelve ships per day passed through the Suez Canal in 1907.

Ultimately, if needed for increased traffic, additional water may be held from wet seasons and made available in dry ones. This may be accomplished either by raising further the high water level in Gatun Lake or by lowering the low water level in the lake, this lowering being accompanied, if necessary, by the deepening of the canal, or storage may be provided by an entirely independent reservoir, for which there are excellent sites.

From our examinations in the neighborhood of Gatun dam we can find no reason to apprehend important loss of water by seepage through the ridges surrounding the lake, while in our judgment the bed of the lake will be practically impervious to water.

The water supply in sight is so much greater than any need that can be reasonably anticipated that the best method of securing more water when the time of need arrives does not require to be considered now.

Conclusions.

Your board is satisfied that the dams and locks, the lock gates, and all other engineering structures involved in the lock canal project are feasible and safe, and that they can be depended upon to perform with certainty their respective functions.

We do not find any occasion for changing the type of canal that has been adopted.

A change to a sea level plan at the present time would add greatly to the cost and time of construction, without compensating advantages, either in capacity of canal or safety of navigation, and hence would be a public misfortune.

We do find in the detailed designs that have been adopted, or that are under consideration, some matters where other arrangements than those now considered seem worthy of study. As these proposed changes are of a tentative nature and do not in any case affect the main questions herein discussed, they are not taken up in this report.

Very respectfully,

FREDERIC P. STEARNS.

ARTHUR P. DAVIS.

HENRY A. ALLEN.

JAMES D. SCHUYLER.

ISHAM RANDOLPH.

JOHN R. FREEMAN.

ALLEN HAZEN.

The PRESIDENT.

SOUTHERN COAST.

Redondo.

The Chamber of Commerce of Redondo announce that \$50,000 will be expended on a new pleasure pier in the near future.

San Diego.

Bids have been called for by the San Diego Investment Company for two passenger boats, to be fitted with all modern conveniences, one to have a carrying capacity of 200 and the other 75.

Captain Fred Hilton of the power sloop Hercules reports that the sloop Star has been captured off the Lower California coast for poaching. Inquiry at Euseñada, where the Star is said to have been taken, failed to receive a confirmation of the report.

HAWAIIAN NOTES.

A resolution recommending that Congress suspend, to such time as the passage of a subsidy bill, the existing coastwise shipping laws, in so far as they pertain to Hawaii, was defeated by a comfortable majority. The object of this resolution was to allow the foreign ships to carry freight and passengers between Hawaii and the mainland coast ports, it being claimed that so much time elapses between the sailing of American steamships that it works a great hardship on Hawaiian travelers.

The Japanese fishermen of the islands are attracting an unusual amount of attention at the present time because of the fact that they are equipping their fishing sampans with the most powerful and effective engines on the market. As the local fishing industry does not in any way warrant such unusual expenditures the Japanese had some ulterior purpose and in the course of developments it has been discovered that they are carrying on an extensive and perfected system of smuggling.

Another alarming feature of the case is the ease with which these sampans can be converted into passenger boats. In the event of international trouble it is estimated that fifteen thousand men could be landed at obscure points around the island with the aid of these sampans.

Honolulu.—A report has been circulated from unknown sources that the U. S. army transport Logan had received no injury from her recent stranding, but while there has been no official report made as yet, the Marine Exchange received a cablegram stating that the Logan was badly strained and leaking forward. An investigation will be held shortly to fix the responsibility for the accident.

LOCAL NOTES.

The torpedo boat Farragut collided with the S. S. Davis while in San Diego, and upon arrival at Mare Island was compelled to go on the drydock. At the time of the accident the Davis was attempting to cross the bow of the Farragut.

The Toyo Kisen Kaisha Co. will shortly enter into active competition for the Atlantic trade, and the company is at the present time building four steamers which, when running, will make Hamburg a terminal port.

Forty vessels are preparing to depart for the salmon fisheries of the north in the course of the next two weeks. Three thousand men will be required this season, and while in former seasons it was usually a hard problem to secure enough hands, this season there is no scarcity of men.

THE USE OF OIL AT SEA

(U. S. Hydrographic Office, Washington, D. C.)

Brief Rules for the Use of Oil to Protect Vessels in Stormy Waters

From the prize essay submitted to the Hamburg Nautical Union by Captain R. Karlows of the Hamburg-American Steamship Company

In the illustrative figures, the flowing lines represent the spreading oil and the arrows denote the direction of the wind and sea

Fig. 1.

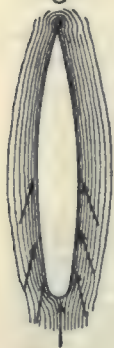


Fig. 2.



Scudding before a gale, Fig. 1, distribute oil from the bow by means of oil bags or through waste pipes. It will thus spread aft and give protection both from quartering and following seas.

If only distributed astern, Fig. 2, there will be no protection from the quartering sea.

Steaming into a heavy head sea, Fig. 9, use oil through forward closet pipes. Oil bags would be tossed back on deck.

Lying-to, to tack or wear, Fig. 10, use oil from weather bow.

Cracking on, with high wind abeam and heavy sea, Fig. 11, use oil from waste pipes, weather bow.

Fig. 9.

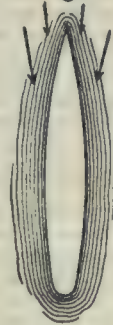


Fig. 11.



Fig. 10.

Fig. 3.

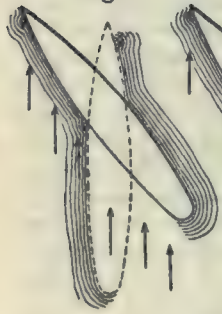
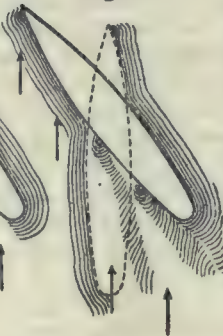


Fig. 4.



Running before a gale, yawing badly, and threatening to broach-to, Figs. 3 and 4, oil should be distributed from the bow and from both sides, abaft the beam.

In Fig. 3, for instance, where it is only distributed at the bow, the weather quarter is left unprotected when the ship yaws.

In Fig. 4, however, with oil bags abaft the beam as well as forward, the quarter is protected.

A vessel hove-to for a pilot, Fig. 12, should distribute oil from the weather side and lee quarter. The pilot boat runs up to windward and lowers a boat, which pulls down to leeward and around the vessel's stern. The pilot boat runs down to leeward, gets out oil bags to windward and on her lee quarter, and the boat pulls back around her stern, protected by the oil. The vessels drift to leeward and leave an oil-slick to windward, between the two.

Fig. 12.

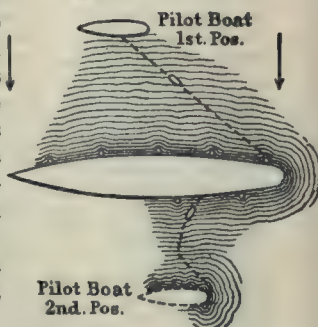


Fig. 5.

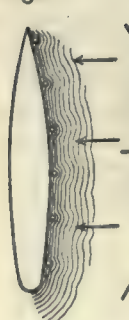
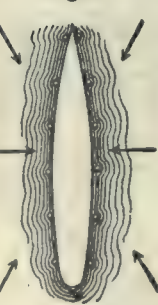


Fig. 6.



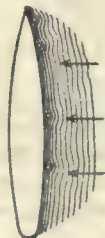
Lying-to, Fig. 5, a vessel can be brought closer to the wind by using one or two oil bags forward, to windward. With a high-beam sea, use oil bags along the weather side at intervals of 40 or 50 feet.

In a heavy cross sea, Fig. 6, as in the center of a hurricane, or after the center has passed, oil bags should be hung out at regular intervals along both sides.

Fig. 7.



Fig. 8.



Drifting in the trough of a heavy sea, Figs. 7 and 8, use oil from waste pipes forward and bags on weather side, as in Fig. 8.

These answer the purpose very much better than one bag at weather bow and one at lee quarter, although this has been tried with some success, see Fig. 7.

Towing another vessel in a heavy sea, oil is of the greatest service, and may prevent the hawser from breaking. Distribute oil from the towing vessel forward and on both sides, Fig. 13. If only used aft, the tow alone gets the benefit.

Fig. 13.

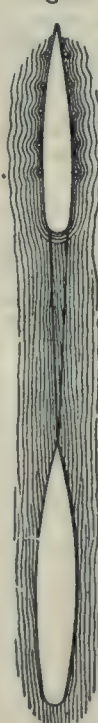


Fig. 14.



At anchor in an open roadstead, use oil in bags from jib-boom, or haul them out ahead of the vessel by means of an endless rope rove through a tail-block secured to the anchor chain, Fig. 14.

In addition to the foregoing there are other cases where oil may be used to advantage, such as lowering and hoisting boats, riding to a sea anchor, crossing rollers or surf on a bar, and from life-boats and stranded vessels.

Thick and heavy oils are the best. Mineral oils are not so effective as animal or vegetable oils. Raw petroleum has given favorable results, but not so good when it is refined. Certain oils, like cocoanut oil and some kinds of fish oil, congeal in cold weather, and therefore are useless, but may be mixed with mineral oils to advantage.

The simplest method of distributing oil is by means of canvas bags about one foot long, filled with oakum and oil, pierced with holes by means of a coarse sail needle, and held by a lanyard. The waste pipes forward are also very useful for this purpose.

The Hydrographic Office will be glad to publish short accounts of the use of oil to prevent heavy seas from breaking on board. The reports should always describe the state and direction of the seas, speed of the ship, kind of oil, method and place of applying the same, amount used, and what effect it had.

NORTHERN NOTES.

Portland.

Work on the jetty at the mouth of the Columbia will start in April, and all possible haste will be made to bring the work to a termination, although it is hardly possible that the jetty will be completed this summer.

The California and Oregon Coast S. S. Co. have had plans drawn up for a new boat, to operate between Portland and Coos Bay. Bids will soon be called for and the company expect to have the boat running within five months.

The S. S. Vulcan, while towing a raft of logs up the river from the lower Columbia, broke a crank pin, completely crippling the port side machinery. Immediately following the breaking of the crank pin the cylinder heads of the engine blew out. The engine is a complete wreck and a new one will be installed.

The Olsen & Mahoney people, owners of the barkentine Wrestler, have decided to dispose of the wind-jammer upon her arrival at her destination in Peru. Olsen & Mahoney are disposing of all their wind-jammers, superseding them with steam schooners, in pursuance of a policy adopted by the several companies operating on this coast.

The Port of Portland Commission has called for bids on a steel hull river towboat. The bids will be opened at the meeting on Thursday, April 8. The dimensions of the boat are 214 feet long, 45 feet wide and 8 1-6 feet deep.

The steamer J. Cochran has been purchased by San Francisco capitalists, to operate on Puget Sound. The steamer is a stern wheeler and was built ten years ago at a cost of \$105,000.

The pilot schooner Joseph Pulitzer will be sold by the Columbia River Bar Pilot Association to the Port of Portland Commission for \$12,000.

Congress at the last session appropriated \$835,000 for river and harbor improvements on the Willamette and Columbia rivers, between Portland and the sea.

The S. S. Senator will be taken off the Portland-San Francisco run in the near future to prepare for service between Puget Sound and Alaska during the summer.

A steamer which is to take the run of the Senator was recently purchased in the East, but it is doubtful whether it will arrive in time to assume its duties upon the Senator's leave.

A revised set of regulations have been received by the U. S. Engineers from the office of the Assistant Secretary of War, limiting the speed of steam vessels, whether propelled by screw or wheel, to eight miles an hour while within the harbor limits.

Portland.—The council at a recent meeting appropriated \$2,500 for a new patrol and harbor master's launch. The plans and specifications have been prepared and bids will be called for next week. The hull and engine will be estimated separately. The boat is expected to attain a speed of 14 miles an hour.

Seattle.

A resolution was passed by the Seattle Chamber of Commerce strongly recommending a steamship line to ply between the Pacific and Atlantic coast and to be subsidized by the Government or else encouraged by a mail contract.

A unique salvage contest has been decided in the local courts which will be of vast importance to maritime interests. The schooner W. A. Holden is held liable for salvage to the amount of \$3,102 and her cargo to the amount of \$1,748.

The W. A. Holden was at the time in danger of stranding on the rocks at Waddah Island and had already displayed distress signals when the steam schooner Charles Nelson, belonging to the Charles Nelson Co., came to the rescue and towed the Holden out of danger.

Judge Hanford states that, notwithstanding the fact that the master of the Holden stipulated that he would pay only for towing, the Nelson is entitled to salvage.

PERSONAL.

Captain Thomas Stream of the schooner George W. Watson is being held to answer for a charge to do great bodily injury. William Miller raised a disturbance on the Third-Street wharf Friday, when he and the captain had a row, which resulted in sending Miller to the Maritime Hospital. Captain Stream is out on \$250 cash bail.

Captain C. P. Kinney, master of the British ship Senator, has resigned to accept a position as Assistant Marine Superintendent for the Grand Trunk Pacific R. R. Co. He will be stationed in Victoria for the present to superintend the building of two river steamers for the company.

Captain Beers, a well known Seattle shipping man, has purchased the stern-wheel river steamer H. J. Corcoran, now laid up at Antioch, Cal.

H. M. Tait of Montreal has been appointed agent for the Canadian Pacific R. R. Co., with headquarters in Seattle.

Captain S. H. Scammon, of the S. S. Dalles City, has been arrested for exceeding the speed limit within the Portland harbor.

Chas. Basset, a well known marine engineer of Seattle, was compelled to undergo a serious operation recently at the Providence Hospital. He was not expected to live for several hours before the operation, but he is now recovering rapidly.

J. Gaston, chief engineer of the S. S. Lansing, is in the hospital, recovering from an attack of la grippe.

COURT NOTES.

The suit filed against William J. Wood by the Franklin Machine Company to recover \$1,200 for work performed and material supplied to the launch Fighting Bob was decided against the defendant. According to the decision the Franklin Machine Company is entitled to work performed on the engines, less the value of the machinery in its uncompleted condition.

Portland—The Port of Portland Commission have filed suit against the owners of the steamer Bailey Gatzert for \$25,000 damages. About two years ago the Gatzert ran into and sank the dredge Portland.

Victoria—In the case of *Dunsmuir vs. C. P. R.*, Judge Martin of the admiralty court rendered a decision awarding the tug Pilot, owned by the plaintiff, \$2,200 for having saved the steamer Otter when she was in danger of stranding at Ladysmith last summer.

Seattle—The decision of the Seattle court, in the suit filed against the P. C. S. S. Co. by John T. Nelson, was confirmed by the State Supreme Court. Nelson, while engaged in loading the steamer Ramona, received injuries by the falling of a plate of iron, which compelled him to have three toes amputated. The court awarded the plaintiff \$1,825 and costs.

NOTE UPON THE CONTINGENT OF LABORERS ON THE WORKS OF THE SUEZ CANAL COMPANY.

Cairo, April 14, 1863.

The fertility of the soil depends in Egypt on a single fact, the existence of the Nile, whose annual floods come to refresh and fertilize the soil. Deprived of irrigation, Egypt would be nothing but a desert. It exists only by the force of the phenomenon of periodic floods, whose return is, happily, as regular as the revolution of the planets.

But the river does not itself extend its bounties beyond its shores. Hence the necessity of recourse to artificial means to manage and direct the waters in such manner as to spread them over the most distant parts of the territory; hence the need of a vast system of canalization and of embankments and dykes, the upholding of which may not be neglected a single day, without exposing part of the country to barrenness and ruin.

But it may be assumed as certain that these tracts of land requiring general and continuous attention, as well as great executive means and considerable outlay, would never be reclaimed if they were abandoned to the carelessness of individuals whose resources are, besides, too limited to suffice for the attainment of the end.

It pertains to the local administration to provide for this, and it cannot provide for it unless by temporary drafts by young laborers, who thus discharge their personal obligations to the country.

Placed on the confines of Africa and Asia, washed on one side by the Red Sea, on the other by the Mediterranean, Egypt is the shortest and most direct route between the western and eastern world—the central point of the vast relations which at this day connect Europe and America with Oriental Africa, the Indies, China, Oceania.

The Egyptian Government, struck with the benefits which would spread over its own territory, could it any longer delay to open to the advantage of all nations the great channel of communication which secures its moral existence just as the upholding of its inland canalization

assures its material existence? Could it avoid supplying the contingents of workmen necessary to the completion of these indispensable works of public usefulness?

Its right had not been disputed by England, and it had been very severely tested at the solicitation and to the satisfaction of British agents on the work of the railroad from Alexandria to Suez, where, on the section from Cairo to Suez, especially, it may be said the rails are laid on thousands of Egyptian skeletons.

But the Egyptian Government understood that the immemorial right of drafting laborers for works of public benefit must be enforced on humane conditions; and that in place of being a gratuitous duty—that is, a toll which is still levied in many European countries—it should be a source of gain to its people.

The Suez Canal Company has had the honor, by paying their laborers, by watching over their health and welfare, of inaugurating the new system of the abolition of compelled labor, which his Highness Ismail Pacha declared he would extend thenceforward to all other works in Egypt. In fact, there will be no more compelled labor, from the day when labor is everywhere justly recompensed, as it now is on the isthmus.

The convention made on this head with the Egyptian Government is dated July 20, 1856, and is thus expressed:

We, Mahommed Said, Viceroy of Egypt, desiring to assure the completion of the works of the Suez canal, to provide for the good treatment of the Egyptian laborers who will be employed there, and, at the same time, to watch over the interests of the farmers, owners, and contractors of the country, have established, in concert with Mr. Ferdinand de Lesseps, as president, founder of the Universal Company of the Suez Canal, the following regulations:

Article I.—The laborers who shall be employed on the company's works shall be supplied by the Egyptian Government on the application of the engineers-in-chief, according to their need.

Article II.—The pay granted to the workmen shall be fixed, according to the average price paid on the works of private persons, at the sum of three piasters a day, not including the rations, which shall be furnished by the company to the value of one piaster. In cases where it is sure that the laborers who ask it are able to provide for themselves, the ration shall be given to them in money. The duty of supplying potable water, in abundance, for all the wants of the laborers, shall be at the charge of the company.

Article III.—The number of laborers employed by the company must earn at the rate of four piasters a day—120 piasters—say twenty francs for thirty days' labor.

At this time, and in the ordinary condition of the ground, the contingents of laborers are paid at the rate of forty centimes the meter cubic. When they receive forty centimes, they do in twenty to twenty-five days, at most, a stint of sixty cubic meters, which gives them 120 piasters, or twenty francs.

On difficult ground the cubic meter is paid for at seventy centimes, but then the stint is reduced. In this case the laborer does not earn less than twenty francs. It sometimes happens that they earn thirty, and even forty.

As to good treatment, of which they are the objects, it has become publicly notorious. The number of sick is insignificant, and the mortality is less among the contingents of the isthmus than in the most salubrious villages in Egypt.

FERD. DE LESSEPS.

Pacific Merchant Marine

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The closing days of the present session of Congress has witnessed the defeat of the ship subsidy bill, and the last hope of rehabilitating American commerce on the Pacific by subsidies remain but a memory. Pacific Coast ports have contributed their just proportion of revenue to the United States Treasury, have answered every appeal to suffering humanity with proverbial hospitality; have furnished their full quota of every demand made upon their resources without affecting their unlimited supply; have yet in their possession the key of the gateway to the commerce of the world. Admitting our inability to compete with more favored parts of the United States in the matter of raw materials and therefore manufacturing industries, much remains in possession of Pacific Coast States upon which these very raw materials and manufacturing centers must depend for their future success. To surpass the prosperity of many of the Eastern States is a commendable ambition, backed by the items on a balance sheet of Pacific Coast resources compared to Atlantic Coast resources; the Pacific Coast should not concede a penny. Two-thirds of 90,000,000 inhabitants and the resources which maintain them can never be made to balance with 30,000,000 inhabitants and unlimited resources whereby to maintain 200,000,000.

The Moses who shall guide us from the wilderness may try many trails before meeting with success; may travel the by-roads of excessive freight charges, unjust discrimination by Congress, earthquakes, industrial strife and the thousand and one other paths by which he hopes to succeed, when, weary and foot-sore, he sinks beside the mutilated figure of Pacific Coast commerce, but with a sufficient hope left for a final effort, and enters upon the open path of truth which soon brings him to the broad, well paved road, made brilliant by a sunshine which only a California sun can produce, whence he has traveled with renewed hope and vigor, and passed to right and left the dazzling mines of gold and silver and quicksilver, the forests of giant trees and timber, the wheat fields and orange groves, the prune and olive orchards, the oil wells and mountain streams of untold power, the grape vines and wineries, the fisheries and canneries; when he has reached the engraved tablet of imperishable stone upon which is written the following statistics, the products of one Pacific Coast State for the year 1908:

Wheat (centals)	8,500,000
Barley (bushels)	20,000,000
Corn (bushels)	1,150,000
Oats (bushels)	4,300,000
Beet sugar (pounds)	175,000,000
Butter (pounds)	45,500,000
Cheese (pounds)	10,000,000
Condensed milk (cases of 48 cans) ..	170,000
Beans (pounds)	85,000,000
Hops (pounds)	14,700,000
Wool (pounds)	14,500,000
Honey (pounds)	5,250,000
Oranges (car loads)	27,500
Lemons (car loads)	5,000
Fresh fruits (car loads)	27,000
Dried fruits (pounds)	110,000,000
Almonds and walnuts (pounds)	22,000,000
Canned fruits (cases)	5,000,000
Wines and brandy (gallons)	47,000,000
Quicksilver (casks, 75 lbs.) (flasks) ..	17,000

From this partial list he desires to see and learn more, and proceeds on his way to finally reach the Golden Gate, through which he views the eastern shore of the great Pacific Ocean; there he sees a clamoring multitude, composed of nearly one-half the population of the earth, bound by the chains of exclusion from participation in the bounties which we enjoy, but ever ready and capable of learning and imitating. Here, occasionally, his vision is obstructed by a ship of the United States, while more often his sight is entirely dimmed by the ships of other nations. Too true, alas, he realizes his journey is not ended, but which way to turn he knows not.

There are in the mainland of the United States 282 streams navigated for an aggregate of 26,115 miles, and as much more navigable by improvement. There are also forty-five canals, with a mileage of 2,189.05, besides numerous abandoned canals. On lake and sound routes there is large traffic, but the navigation of rivers and canals is too small for definite record. The cost of water carriage averaging about one-fourth that of rail carriage, and our railway freightage, during 1906, reached 217,000,000,000 ton-miles at an average rate of 0.77 cent, the shipping of one-fifth of our freight by water would have saved over \$250,000,000 to our producers and consumers.

Governor Gillett of California has expressed himself very forcibly, and from personal observation, regarding the repeal of the celebrated erimp law in the State.

Sections 644 and 645 of the Penal Code of California are as follows: "Every person who entices seamen to desert from any vessel lying in the waters of this State, and of which they have shipped for a term or voyage, unexpired at the time of such enticement, is guilty of a misdemeanor.

"Every person who harbors or secretes any seaman, knowing him to be shipped, and with a view to persuade or enable him to desert, is guilty of a misdemeanor."

These are the laws in question and were adopted in February, 1872, when existing conditions warranted extreme measures of legislation as a protection to seamen on the Pacific Coast. Changed conditions, however, aroused the interest of various organizations, and the repeal of this law was brought to the attention of the Legislature at Sacramento, and at one time was advocated by the Ship Owners' Association of the Pacific Coast. The present Legislature was appealed to, and much time consumed in considering the matter. Labor representatives on the one

side advocating the repeal of the law and the Ship Owners' Association on the other repudiating their former opinions, the bill was finally passed, but Governor Gillett, in his veto, evidently has given the subject due consideration, and finally vetoed the repeal of the law.

The law was brought into existence at a time when the seafaring man was entirely at the mercy of an organized group of boarding-house masters, supply houses and liquor stores that sought control of the sailors on the city fronts, and invariably owned poor Jack, body and soul. To arrive at such results many flagrant breaches of the law were resorted to, without recourse by the unfortunate victim.

Governor Gillett evidently leaned toward the side of conservative unionism in vetoing the bill, when he stated in part: "I know that the law has been a great preventive of murder and other crimes; I do not consider this a labor union matter, because the law as it stands at the present time does not hamper any good lawabiding member of a union in furthering his ideas, but it does curb the murderous tendencies of those individuals who bring disgrace upon labor."

SHIPBUILDING NOTES.

Union Iron Works.

Minor repairs to engines of S. S. Ashtabula.

The tug Sea Queen is having stern bearing relined.

Renewing zines and painting of the revenue cutter Golden Gate.

Risdon Iron Works.

S. S. Seminole having machinery and deck repairs made.

Moore & Scott.

Secured the contract for repairs and alterations on the S. S. San Mateo. The firm will build and install eight winches for cargo handling and complete extensive repairs. The work will require a large force of men for the next sixty days.

United Engineering Works.

Repairs to engine and hull of Thomas, amounting to \$2,887.

The bark George Curtis overhauled.

Whaler Karluk being fitted out for cruise north.

S. S. San Jose is being cleaned and painted.

General repairs to light ship No. 70.

G. W. Kneass.

Forty-eight-foot pleasure launch for Santa Cruz. The launch will be equipped with a 45-h. p. Union gas engine.

W. A. Boole & Son.

Ship Sintram is on the drydock for cleaning and painting. She is also having a number of new yards made.

U. S. revenue cutter McCulloch is having her decks recaulked and minor engine and boiler repairs.

A. L. Howard relieved W. J. Brady as chief steward of the S. S. G. W. Elder.

The place of Second Officer W. Weidlich of the S. S. Buckman was taken by Third Officer R. C. Brennan. R. C. Barber went as third officer.

George Clemens, third officer of the S. S. G. W. Elder, was taken to the hospital in Los Angeles while the vessel was there on her last voyage. His position was filled by Randall Rogers, formerly second officer of the S. S. Roanoke.

Alex. Stouden resigned his position as second officer of the S. S. Coronado.

William Brown relieved A. T. Nelson as second officer of the S. S. Daisy Mitchell.

Charles Johnson, formerly first officer of the S. S. Costa Rica, has been appointed to a similar position on the S. S. Argo, which runs between Portland and Tillamook.

Second Assistant Engineer William Mooney left the S. S. San Jose, his position being taken by Ray Jones, formerly third assistant. R. J. Brady was appointed third assistant.

J. Brannan has left the S. S. Acapulco as third assistant engineer, to go as first assistant engineer of the S. S. Aztec, now carrying coffee from the South American Republics to Panama.

First Assistant Engineer S. L. Preddy, of the S. S. Aztec, arrived on the S. S. Acapulco from the southern coast.

OBITUARY.

Captain Payne E. Cleaves, a retired master mariner, and a native of North Yarmouth, Maine, died at Lyle, Oregon, aged 77.

Captain G. A. Edwards died at his home in Los Angeles from the effects of a stroke of apoplexy, caused by falling on the deck of the S. S. Santa Rosa, of which he was chief steward. The exposure as master of vessels in his younger days caused him so much trouble from rheumatism that he was compelled to take the position of chief steward.

P. M. BAMBINO

Exclusive Tailor

UNIFORMS A SPECIALTY

219-220 Buckeley Bldg.
95 Market Street

San Francisco, Cal.

COLUMBIA RIVER PILOTAGE AND TOWAGE RATES

BAR PILOTAGE

For piloting an inward or outward bound vessel to or from Astoria over the bar, or from within the bar to the open sea, all vessels shall pay \$5 per foot draft, and 2 cents per ton for each and every ton registered measurement.

The pilot who first speaks a vessel, or duly offers his services thereto as pilot, on or without the bar pilot grounds, is entitled to pilot such vessel over the same; but the master may decline to accept, and may navigate his vessel over said pilot grounds without a pilot; but, nevertheless, he shall, if inward bound, pay full pilotage, and if outward bound, one-half of above rates.

RIVER PILOTAGE

For piloting a vessel upon the river pilot ground between Astoria and Portland, whether ascending or descending, all vessels shall pay \$2 per foot draft and 2 cents per ton for each and every ton registered measurement; and the Board is authorized to prescribe a proportionate compensation for pilot service between other points on said ground, or from one part of a dock to another part of the same dock, the charge therefor shall be a sum not exceeding \$7.50; and the pilot shall, on being thereunto requested by the master of the vessel, be required to do such work, and for such compensation. Provided, however, it shall be optional with the master or person in

charge of such vessel whether he accepts or demands the services of any such pilot; and if the master or other person in charge of any vessel declines to accept the services of a pilot on the river pilot ground aforesaid, the vessel shall not be liable for pilotage.

Columbia River Towage Tariff From the Pacific Ocean or Astoria to Portland and Return for Vessels Other Than Lumber Carriers.

Vessels 500 to 700 tons net register	\$500.00
Over 700 to 1000 tons net register	550.00
Over 1000 to 1200 tons net register	600.00
Over 1200 to 1500 tons net register	650.00
Over 1500 to 1800 tons net register	700.00
Over 1800 to 2000 tons net register	750.00
Over 2000 to 2500 tons net register	800.00
Over 2500 to 3000 tons net register	850.00
Hawser charge.	\$15.00 each way

Vessels towed from the sea to Astoria and return only, will be charged 70 per cent of the rate charged to Portland and return.

Vessels in ballast towed from the sea to Astoria and return, when entering the river as a port of call and departing without cargo, will be charged 25 per cent of the rate to Portland and return.

SCHEDULE OF RATES FOR TOWAGE OF LUMBER SCHOONERS WHEN PLYING BETWEEN PACIFIC COAST PORTS.

From the Pacific Ocean—

To Portland, Ore., or Vancouver, Wash., and return to Pacific Ocean, 50 cents per 1,000 feet.

To Astoria and return to Pacific Ocean, 25 cents per 1,000 feet.

NOTE.—The above rates apply only to vessels arriving light or in ballast. No charge is then made for hawser. If vessel loads at two points outside of Portland harbor, an additional charge of 10 cents per 1,000 feet is made.

When vessels arrive with cargo, the rate per 1,000 feet to both ports indicated above is increased by 25 cents and a hawser charge of \$15 each way is also made. Charges will be computed on the actual number of feet of lumber carried from Portland, Ore., or Vancouver, Wash., subject to minimum charge based on 300,000 feet of lumber. The rates named from Pacific Ocean and return to Pacific Ocean, apply on vessels for lumber mills maintaining their own river towage service between Astoria and Portland, Ore., or Vancouver, Wash., and when handled by their own steamers, Astoria to Portland, Ore., or Vancouver, Wash., and return only. The towboat company reserves the right to decline to tow vessels through drawbridges at Portland when deemed unsafe, account unfavorable weather or water conditions.

INSTRUCTIONS AND RATES COVERING HARBOR MOVES AND LIGHTERAGE.

Moves. Vessels will be moved within the harbor limits of Astoria or Portland at a charge of \$20 for each steamer used for each move.

Lighterage: The channel of the Columbia and Willamette Rivers having been deepened to admit vessels drawing 25 feet, in the event of its becoming necessary from any cause to lighter vessels bound outward from Portland, carrying cargoes of grain and its products foreign, such lighterage will be handled free of charge by the towboat company.

Any necessary lighterage of inbound vessels destined to Portland will be handled at a charge not exceeding \$1.00 per ton, weight or measurement at option of towboat.

GRAYS HARBOR TOWAGE RATES

Towage rates at Grays Harbor are fixed on a basis of 40 cents per thousand feet of lumber carried outward.

Moving vessels within the harbor limits is done by small steamers, without regard to a fixed tariff. Usual charges for this service run from \$2.50 to \$10.00, according to distance.

PUGET SOUND PILOTAGE

Pilotage is not compulsory. If pilot is employed by vessel bound in, rate subject to agreement. Tugs have full charge of vessels in tow, tug-boat masters all being Government licensed pilots.

PUGET SOUND TOWAGE RATES—SINGLE DECK VESSELS

TONS	BETWEEN CAPE FLATTERY AND										BETWEEN PORT TOWNSEND AND										BETWEEN PORT ANGELES AND									
	Port Angeles	Port Townsend	Hadlock	Port Gamble, Port Ludlow, Roche Harbor	Anacortes	Bellingham, Everett, Port Mudge, Seattle, Port Blakely, Shilshole Bay*	Tacoma, Coscoquina, Ladysmith, Blaine	Olympic, Westville, Vancouver, Narrows, Stevedore	Hadlock	Port Townsend	Dungeness	Port Angeles, Port Ludlow	Anacortes	Bellingham, Everett, Roche Harbor, Seattle, Port Blakely, Shilshole Bay*	Tacoma, Blaine	Olympic, Coscoquina, Ladysmith, Blaine	Westville, Vancouver, Narrows, Stevedore	Port Townsend	Hadlock	Port Gamble, Port Ludlow	Anacortes	Bellingham, Everett, Port Mudge, Seattle, Port Blakely, Shilshole Bay*	Roche Harbor	Tacoma, Coscoquina, Ladysmith, Blaine	Olympic, Westville, Vancouver, Narrows, Stevedore	Hadlock	Port Townsend	Dungeness		
150 to 250	\$ 40	\$ 65	\$ 75	\$ 85	\$ 90	\$ 95	\$105	\$135	\$10	\$10	\$10	\$25	\$ 28	\$ 30	\$ 40	\$ 70	\$ 85	\$ 35	\$ 35	\$ 50	\$ 53	\$ 55	\$ 45	\$ 65	\$ 65	\$ 95	\$ 110	\$ 125	\$ 140	
251 to 350	45	75	90	105	110	115	125	155	15	15	15	30	35	40	50	80	100	40	45	60	65	70	80	90	100	110	125	140	155	
351 to 450	50	85	102	120	128	135	145	175	20	20	20	45	50	60	70	100	120	45	50	65	70	80	90	100	110	125	140	155	170	
451 to 550	53	90	109	128	137	145	155	185	23	23	23	50	55	65	75	105	135	48	53	68	73	83	93	103	113	128	143	158	173	
551 to 650	55	95	115	135	145	155	165	195	25	25	25	55	60	70	80	110	140	50	55	70	75	85	95	105	115	130	145	160	175	
651 to 750	58	100	122	143	155	165	175	205	28	28	28	60	65	75	85	115	145	53	58	73	78	88	98	108	118	133	148	163	178	
751 to 850	60	105	128	150	163	175	185	215	30	30	30	65	70	80	90	120	150	55	60	75	80	90	100	110	120	135	150	165	180	
851 to 950	63	110	134	158	171	185	195	225	33	33	33	70	75	85	95	125	155	58	63	78	83	93	103	113	123	138	153	168	183	
951 to 1050	65	115	140	165	180	195	205	235	35	35	35	75	80	90	100	130	160	60	65	80	85	95	105	115	125	140	155	170	185	
1051 to 1150	68	120	148	173	188	203	213	243	38	38	38	80	85	95	105	135	165	63	68	83	88	98	108	118	128	143	158	173	188	
1151 to 1250	70	125	152	177	192	207	217	247	40	40	40	85	90	100	110	140	170	65	70	85	90	100	110	120	130	145	160	175	190	
1251 to 1350	73	130	158	183	198	213	223	253	45	45	45	90	95	105	115	145	175	68	73	88	93	103	113	123	133	148	163	178	193	
1351 to 1450	75	135	162	187	202	217	227	257	48	48	48	95	100	110	120	150	180	70	75	90	95	105	115	125	135	150	165	180	195	
1451 to 1550	78	140	168	193	208	223	233	263	50	50	50	100	105	115	125	155	185	73	78	93	98	108	118	128	138	153	168	183	198	
1551 to 1650	80	145	172	197	212	227	237	267	55	55	55	105	110	120	130	160	190	75	80	95	100	110	120	130	140	155	170	185	200	
1651 to 1750	83	150	178	203	218	233	243	273	60	60	60	110	115	125	135	165	195	78	83	98	103	113	123	133	143	158	173	188	203	
1751 to 1850	85	155	182	207	222	237	247	277	65	65	65	115	120	130	140	170	200	80	85	100	105	115	125	135	145	160	175	190	205	
1851 to 1950	88	160	188	213	228	243	253	283	70	70	70	120	125	135	145	175	205	83	88	103	108	118	128	138	148	163	178	193	208	
1951 to 2050	90	165	192	217	232	247	257	287	75	75	75	125	130	140	150	180	210	85	90	105	110	120	130	140	150	165	180	195	210	
2051 to 2150	93	170	198	223	238	253	263	293	80	80	80	130	135	145	155	185	215	88	93	108	113	123	133	143	153	168	183	198	213	
2151 to 2250	95	175	202	227	242	257	267	297	85	85	85	135	140	150	160	190	220	90	95	110	115	125	135	145	155	170	185	200	215	
2251 to 2350	98	180	208	233	248	263	273	303	90	90	90	140	145	155	165	195	225	93	98	113	118	128	138	148	158	173	188	203	218	
2351 to 2450	100	185	212	237	252	267	277	307	95	95	95	145	150	160	170	200	230	95	100	115	120	130	140	150	160	175	190	205	220	
2451 to 2550	103	190	218	243	258	273	283	313	100	100	100	150	155	165	175	205	235	98	103	118	123	133	143	153	163	178	193	208	223	

DOCKING—150 to 250 tons, \$5.00; 251 to 350, \$7.50; 351 to 450, \$10.00; 451 to 550, \$12.50; 551 to 650, \$15.00; 651 to 750, \$17.50; 751 to 850, \$20.00; 851 to 1000, \$25.00.

Towage to or from Fraser River points above Steveston subject to special rates. *Towage from Shilshole Bay to Inner Harbor, Ballard, and Inner Harbor, Ballard, to Shilshole Bay, subject to special rates.

HAWSER CHARGE.—Vessels 500 tons and under, \$5.00 each way. Hawser Charge vessels over 500 tons, \$10.00 each way.

Rate from Vancouver to Sound ports above Port Townsend, on vessels of 1000 tons and over, same as sea rate to Sound port. Vessels towing from sea to Tacoma or Seattle, and calling at Port Townsend or Port Angeles for orders will be given a direct rate. Captains to wire agent of tugs 48 hours' notice of when tug is required.

Whistle Signals.—1 Whistle, set fore and aft sails. 2 Whistles, set square sails. 1 Long and 2 Short Whistles, haul in port braces. 1 Long and 2 Short Whistles, haul in starboard braces. 4 Whistles, take in furl sails. 2 Short and 1 Long Whistle, get anchor ready. 3 Whistles, let go hawser.

Towing in Foggy Weather. 1 Whistle, port helm. 2 Whistles, starboard helm. 1 Long and 2 Short Whistles, fog signals. Display signals when passing Tatoosh if you wish to be reported. Flash a light when you let go hawser at night.

PUGET SOUND TOWAGE RATES—VESSELS OF 500 TONS OR OVER

VESSELS FROM		TONNAGE		TO OR FROM CAPE FLATTERY AND THE FOLLOWING PLACES							TO OR FROM PORT TOWNSEND AND THE FOLLOWING PLACES							TO OR FROM PORT ANGELES, ROYAL ROADS AND FOLLOWING PLACES.						
				Royal Roads, Port Angeles	Discovery, Townsend, Diamond Point	Hadlock	Gamble, Ludlow	Everett, Madison, Ladysmith, Chemainus, Seattle, Cowichan, Blakely, Bell gham	Tacoma, Utsalady, Nanaimo, Vancouver, Moodyville, Steveston	Comox, B. C.	Hadlock	Diamond Point	Gamble, Ludlow	Seattle, Madison, Blakely, Bellingham, Everett	Tacoma, Utsalady, Add \$25 to Cowichan, Ladysmith, Chemainus	Nanaimo, Vancouver, Moodyville, Steveston, Add \$25 to Comox	Townsend, Diamond Point	Hadlock	Gamble, Ludlow, Chemainus, Ladysmith, Cowichan	Everett, Seattle, Blakely, Madison, Bellingham	Tacoma, Utsalady, Nanaimo, Vancouver, Moodyville, Steveston	Comox, B. C.		
851 to 1000 tons.....		\$125	\$175	\$200	\$225	\$250	\$275	\$300	\$ 30	\$ 50	\$ 60	\$100	\$110	\$175	\$ 75	\$105	\$135	\$150	\$175	\$200				
1001 to 1200 tons.....		150	200	225	250	275	300	325	35	60	70	110	125	200	100	125	150	150	175	225				
1201 to 1500 tons.....		175	225	250	275	300	325	350	40	70	75	125	150	225	125	150	175	200	225	250				
1501 to 1800 tons.....		200	250	275	300	325	350	375	45	80	100	150	175	250	150	175	200	225	250	275				
1801 to 2000 tons.....		225	275	300	325	350	375	400	50	90	125	175	200	275	175	200	225	250	275	300				
2001 to 2500 tons.....		250	300	325	350	375	400	425	55	100	150	200	225	300	200	225	250	275	300	325				
2501 to 2750 tons.....		275	325	350	375	400	425	450	60	115	175	225	250	325	225	250	275	300	325	350				
2751 to 3000 tons.....		300	350	375	400	425	450	475	65	130	200	250	275	350	250	275	300	325	350	375				
3001 to 3500 tons.....		325	375	400	425	450	475	500	70	150	235	275	300	375	275	300	325	350	375	400				

Hawser charge, \$10.00 each way.

Towage to or from Fraser River points above Steveston subject to special rates.

Rate from Vancouver to Sound ports above Port Townsend, same as sea rate to Sound port.

Docking vessels, \$25. Vessels towing from sea to Tacoma or Seattle and calling at Port Townsend or Port Angeles for orders will be given a direct rate. Captains to wire agent of tugs 48 hours' notice of when tug is required.

Whistle Signals.—1 Whistle, set fore and aft sails. 2 Whistles, set square sails. 1 Long and 1 Short Whistle, haul in port braces. 1 Long and 2 Short Whistles, haul in starboard braces. 4 Whistles, take in and furl sails. 2 Short and 1 Long Whistle, get anchor ready.

3 Whistles, let go hawser.

Towing in Foggy Weather.—1 Whistle, port helm. 2 Whistles, star-board helm. 1 Long and 2 Short Whistles; fog signals.

Display signals when passing Cape Flattery if you wish to be reported. Flash a light when you let go hawser at night.

HONOLULU PILOTAGE AND TOWAGE RATES

Pilotage is not compulsory, but if foreign vessels and vessels under American register do not employ a pilot they pay one-half of the pilotage. American vessels under a coasting license are entirely free from this charge if they do not employ a pilot.

The pilot fees are based on the following section of the Hawaiian Civil Code:

Section 1, Chapter 32, Laws of 1884. The compensation of the pilots at the port of Honolulu shall be as follows: For all mail steamers of one thousand tons register and upwards, fifty dollars in and same out; for all transient steamers of one thousand tons and upwards, seventy-five dollars in and same out; for all vessels of war, two dollars per foot on draught of water in and out; for all sailing vessels under two hundred tons register, one dollar and a half per foot in and out; for all other vessels and steamers, five cents per ton in and same out; for anchoring vessels outside, twenty dollars; if brought into harbor this charge shall be reduced to ten dollars; for any detention on board a vessel for more than twenty-four hours the compensation shall be seven dollars per day.

Towboat service to sailing vessels is based on the following scale:

From sea into the harbor, or to sea—

Vessels under 200 tons.....	\$30.00
Vessels between 200 and 300 tons.....	35.00
Vessels between 300 and 500 tons.....	40.00
Vessels between 500 and 800 tons.....	45.00
Vessels between 800 and 1000 tons.....	50.00
Vessels between 1000 and 1200 tons.....	60.00
Vessels between 1200 and 1400 tons.....	75.00

Over and above 1,400 tons, five cents per ton registered tonnage in addition, towing outside pilot limits as per agreement.

Moves in the harbor—

Up to 1000 tons.....	\$10.00
1000 to 1400 tons.....	15.00
1400 to 2000 tons.....	20.00
2000 to 3000 tons.....	25.00

SAN FRANCISCO PILOTAGE AND TOWAGE RATES

PILOTAGE

All vessels under 500 tons, \$3.00 per foot draught; all vessels over 500 tons, \$3.00 per foot draught, and 3 cents per ton for each and every ton registered measurement; and every vessel spoken, inward or outward bound, except as hereinafter provided, shall pay the said rates. In all cases where inward bound vessels are not spoken until inside of the bar, the rates of pilotage herein provided shall be reduced 50 per cent. Vessels engaged in the fishing trades shall be exempt from all pilotage except where a pilot is actually employed, as shall all vessels sailing under an enrollment, and licensed and engaged in the coasting trade between the port of San Francisco and any other port of the United States. All foreign vessels and all vessels from a foreign port, or bound thereto, and all vessels

sailing under a register between the port of San Francisco and any other port of the United States shall be liable for pilotage, as above provided.

TOWAGE

The cost of towage from sea to anchorage varies with distance and conditions of weather, and ranges from \$100 to \$250.

For moving a vessel of 2,000 tons net register in the harbor the charges are approximately:

Docking, City Front.....	\$ 30.00
Stream to Port Costa, or Port Costa to Stream.....	130.00
Stream to Sea.....	110.00

Fore-and-aft rigged vessels pay, according to size, from \$7.50 to \$15 for docking, and from \$20 to \$50 for towing to sea.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	21	Feb. 1	Channel changed slightly to the south during the month.
Willapa Bay	27	Mar. 4	No. 8 Buoy missing.
Columbia River	24	Feb. 16	
Nehalem River			
Tillamook Bay	9	Mar. 2	Channel shifting about $\frac{1}{4}$ mile to southward is now $\frac{1}{4}$ mile south of the whistling buoy.
Yaquina Bay	15	Feb. 2	
Sushaw River			October, November, December, January from 13 to 15 feet, but after storm and high water in river has filled up. No soundings lately.
Umpqua River	9 $\frac{1}{2}$	Mar. 1	South spit making close to inner bar buoy. Leave same on starboard hand crossing in.
Coos Bay	18	Mar. 1	Channel remains about the same.
Copah River	8	Mar. 2	Channel has not shifted.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	8	Feb. 1	
Humboldt Bay	19	Mar. 1	North channel very narrow and crooked, not changing, at present.
San Pedro Bay	20	Feb. 20	No change in channel.
San Diego Bay	26	Feb. 25	No change in channel.

TIDE TABLE TO WEEK ENDING SATURDAY, APRIL 7.

Golden Gate Entrance to San Francisco Bay.

MARCH

Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
N	Mon.	1	6:52	3.3	6:56	5.5	14:15	-0.1	21:36	4.5
	Tues.	2	2:04	3.3	7:55	5.5	15:06	-0.3	22:20	4.5
	Wed.	3	3:03	3.3	8:48	5.5	15:48	-0.3	23:00	4.9
	Thurs.	4	3:50	3.1	9:36	5.6	16:25	-0.3	23:34	4.9
Full	Fri.	5	4:40	2.9	10:20	5.5	16:57	-0.2		
	Sat.	6	0:04	5.1	5:08	2.5	11:00	5.4	17:30	0.1
	Sun.	7	0:28	5.1	5:45	2.2	11:45	5.2	18:00	0.5
	Mon.	8	0:50	5.0	6:20	2.0	12:24	4.9	18:39	0.8
1st	Tues.	9	1:14	5.0	6:58	1.8	13:00	4.7	19:08	1.3
	Wed.	10	1:30	5.0	7:40	1.6	13:42	4.4	19:48	1.7
	Thurs.	11	1:47	4.9	8:22	1.3	14:42	4.2	20:14	2.1
	Fri.	12	2:10	4.9	9:04	1.1	15:52	3.8	20:55	2.5
2nd	Sat.	13	2:44	5.0	10:02	0.9	17:25	3.8	21:45	3.0
	Sun.	14	3:25	5.0	11:03	0.7	19:00	3.9	22:50	3.2
	Mon.	15	4:28	5.1	12:12	0.3	20:08	4.2		
	Tues.	16	0:02	3.1	5:48	5.2	13:15	0.0	20:37	4.5
S	Wed.	17	1:18	3.2	7:04	5.5	14:10	-0.3	21:35	4.7
	Thurs.	18	2:30	2.9	8:12	5.7	15:04	-0.5	22:10	5.1
	Fri.	19	3:15	2.4	9:15	5.9	15:50	-0.5	22:43	5.4
	Sat.	20	4:06	1.8	10:08	6.0	16:35	-0.4	23:16	5.6
New	Sun.	21	4:55	1.3	11:02	6.0	17:20	0.0	23:52	5.7
	Mon.	22	5:45	0.8	11:58	5.8	18:08	0.5		
	Tues.	23	0:25	5.7	6:45	0.6	12:56	5.5	18:50	1.0
	Wed.	24	1:04	5.7	7:20	0.3	14:00	5.1	19:35	1.6
1st	Thurs.	25	1:42	5.7	8:15	0.2	15:10	4.7	20:20	2.2
	Fri.	26	2:24	5.6	9:16	0.2	16:35	4.4	21:10	2.8
	Sat.	27	3:14	5.5	10:24	0.2	18:02	4.3	22:15	3.2
	Sun.	28	4:08	5.2	11:32	0.2	19:17	4.3	23:32	3.5
2nd	Mon.	29	5:20	5.1	12:42	0.2	20:18	4.6		
	Tues.	30	1:00	3.4	6:34	5.0	13:40	0.1	21:05	4.8
	Wed.	31	2:10	3.2	7:40	5.0	14:28	0.2	21:44	5.0
APRIL										
A	Thurs.	1	2:58	2.9	8:35	5.1	15:06	0.2	22:14	5.2
	Fri.	2	3:40	2.6	9:25	5.1	15:45	0.4	22:40	5.3
	Sat.	3	4:14	2.1	10:14	5.1	16:20	0.7	23:05	5.3
	Sun.	4	4:46	1.7	10:55	5.0	16:58	0.9	23:26	5.3

Time used, Pacific Standard, 120th Meridian W.
0h. midnight, 12h. noon, less than 12. Forenoon greater than 12. Afternoon, higher numbers. 12. Afternoon time.
N. New Moon E. Moon on the Equator N. S. farthest N or S. of Equator.
A. P. Moon in apogee or perigee.

PIER DIRECTORY, S. F.

NORTH OF MARKET STREET

PIER NO.	1...	Clay	PIER NO.	17...	Union-1
-	3...	Washington	-	19...	Union-2
-	5...	Jackson	-	21...	Fairbert
-	7...	Pacific	-	23...	Greenwich-1
-	9...	Broadway 1	-	25...	Greenwich-2
-	11...	Broadway 2	-	27...	Lombard
-	13...	Vallejo	-	51...	Powell
-	15...	Green			

SOUTH OF MARKET STREET

PIER NO.	2	Mission-1	PIER NO.	20	Stewart
"	4	Mission-2	"	26	Spaul
"	6	Howard-1	"	28	Mann
"	8	Howard-2	"	32	Boyle
"	10	Howard-3	"	34	Fremont
"	12	Folsom-1	"	36	Brannan
"	14	Folsom-2	"	40	
"	16	Harrison	"	42	P. M. S. Co's.
			"	44	

SAN FRANCISCO CUSTOM HOUSE HOURS

Open daily except Saturday from 9 a. m. until 3 p. m. Saturday from 9 a. m. to 12 m. Duties must be paid before 3 p. m. Saturdays before 12 m.

	Entering:	
Survey...	\$3.00	Official Certificates and Oath \$0.20
Entry...	2.50	
	Clearings:	
Clearances	\$2.50	Post Entry, if any, \$2.00
Official Certificate and Oath...	0.20	

NOTICE TO MARINERS.

Santa Barbara—California.

(List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 17.)

Notice is hereby given that Santa Barbara whistling buoy, PS., heretofore reported not sounding, was replaced by a perfect buoy March 12.

Trinidad Head—California.

(List of Lights and Fog Signals, Pacific Coast, 1908, page 26, No. 70, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 40.)

Notice is also given that the 4,000-pound bell at this station was again placed in operation on March 14, the necessary repairs having been completed.

San Francisco Bay—California.

(List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 29.)

Notice is hereby given that East Brother Shoal Buoy O, a first-class gun, found dragged out of position, was replaced March 11, 1909.

By order of the Light House Board.

R. F. LOPEZ, Commander, U. S. N.

Inspector Twelfth Light House District, 813 Mutual Savings Bank Building, 704 Market Street, San Francisco.

In the Navigation School now meeting at the Mission High School Building, the first class is finishing the subject of dead reckoning and will shortly take up chart work.

The second class is commencing the study of middle latitude sailing. An effort is being made to secure quarters for the navigation class in the Ferry Building, where it is hoped there will be a larger attendance.

The light house board, Washington, D. C., will open bids on April 7 for the construction, delivery and equipment of the first class single screw lightship No. 94. Specifications with blank proposals and other information can be had by applying to the lighthouse board, Washington, D. C.

BUOYS MARK NEW CHANNEL.

To mark the newly-dredged channel of the Columbia River the following buoys have been established by the lighthouse department:

Henrici Crossing buoy, 1, second-class spar, in 24 feet of water. Fales' Landing light 132 degrees true (S. E. $\frac{1}{4}$ E. mag.). Henrici Landing range front light, 302 degrees 30 minutes true (N. W. by W. $\frac{1}{2}$ W. mag.). Warrior Rock lighthouse 339 degrees 30 minutes true (N. by W. 1-3-16 W. mag.).

Henrici Crossing buoy, 2, second-class spar, in 23 feet of water. Fales' Landing light 130 degrees 30 minutes true (S. E. $\frac{3}{4}$ E. mag.). Henrici Landing range front light 309 degrees 30 minutes true (N. W. $\frac{1}{2}$ W. mag.). Warrior Rock lighthouse 338 degrees true (N. by W. 15-16 W. mag.).

Henrici Crossing buoy, 3, second-class spar, in 22 feet of water. Fales' Landing light 133 degrees 30 minutes true (S. E. $\frac{1}{4}$ E. mag.). Henrici Landing range front light 304 degrees true (N. W. by W. mag.). Warrior Rock lighthouse 334 degrees 30 minutes true (N. N. W. $\frac{1}{4}$ W. mag.).

Oregon—Willamette River—The beacons of the following lights have been replaced and the lights relighted:

Swan Island lower light, February 26; Swan Island upper light, February 25.

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Name.	State.	Locality.	Lat., North.			Long., West.		
			Deg.	Min.	Sec.	Deg.	Min.	Sec.
Waadah Island.....	Washington.....	Just south of Grays Harbor light.....	48	22	40	124	35	30
Gray's Harbor.....	".....	Near lighthouse boat landing.....	46	53	15	124	07	15
Willapa Harbor.....	".....	Thirteen miles north of Cape Disappointment.....	46	43	00	124	03	00
Ilwaco Beach.....	".....	Bakers Bay, one-half mile northeast of light.....	46	27	50	124	03	25
Cape Disappointment.....	".....	Three-fourths miles southeast of Fort Stevens.....	46	16	40	124	03	00
Point Adams.....	Oregon.....	.....	46	12	00	123	57	00
Tillamook Bay.....	".....	.....	45	33	30	123	57	00
Yaquina Bay.....	".....	About one mile south of harbor entrance.....	44	35	30	124	03	54
Umpqua River.....	".....	Near entrance of river, north side.....	43	42	00	124	10	30
Coos Bay.....	".....	Coos Bay, north side.....	43	22	50	124	18	00
Coquille River.....	".....	In town of Bandon.....	43	07	00	124	25	00
Humboldt Bay.....	California.....	Near the old abandoned lighthouse tower.....	40	46	00	124	13	00
Arena Cove.....	".....	Four miles south of Point Arena light.....	38	54	50	123	42	30
Point Reyes.....	".....	Three and one-half miles north of light.....	38	02	20	122	59	30
Point Bonita.....	".....	Near Point Bonita light.....	.....	.....	.....	.....	.....	.....
Fort Point.....	".....	Three-fourths mile east of light on Fort Winfield Scott.....	37	48	10	122	27	50
Golden Gate.....	".....	On beach in Golden Gate Park, San Francisco, three-fourths mile south of Point Lobos.....	37	46	10	122	30	30
Southside.....	".....	Three and three-eighths miles south of Golden Gate Life-Saving Station.....	37	43	18	122	30	18
Nome.....	Alaska.....	At Nome.....	64	30	00	165	23	00

DISTRESS SIGNALS

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2. The International Code signal of distress indicated by N. C.
3. The distant signal, consisting of a square flag, having either above or below it a ball or anything resembling a ball.
4. Rockets or shells as prescribed below for use at night.
5. A continuous sounding with a steam whistle or any fog-signal apparatus.

At night—

1. A gun fired at intervals of about a minute.
2. Flames on the vessel (as from a burning tar barrel, oil barrel, etc.).
3. Rockets or shells bursting in the air with a loud report and throwing stars of any color or description, fired one at a time at short intervals.
4. A continuous sounding with a steam whistle or any fog-signal apparatus.

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PACIFIC MERCHANT MARINE

SATURDAY, MARCH 27, 1909

VOL. II

NO. 2

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Wreck of the R. D. Inman


The Panama Canal, by Lieut. Col. G. W. Goethals

Coast Port Notes

The New Sound S. S. H. B. Kennedy

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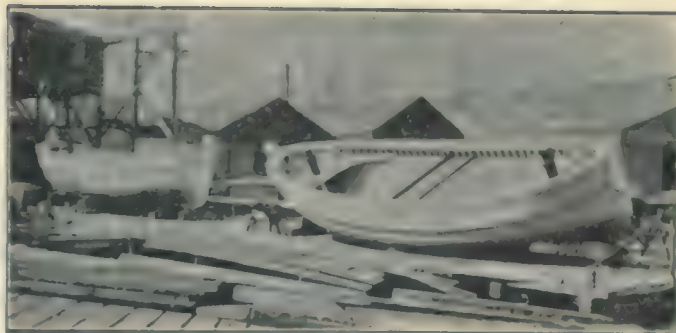
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U. S. CIVIL SERVICE EXAMINATIONS.

COMPETITIVE EXAMINATIONS under the Rules of the U. S. Civil Service Commission, for the Positions named, will soon be held throughout the United States.

EXAMINATIONS TO BE HELD IN THE SPRING OF 1909

Agricultural inspector, Philippine Service.
Aid, Coast and Geodetic Survey.
Apprentice plate cleaner, transferrer, and engraver.
Assistant, Philippine Service.
Assistant examiner, Patent Office.
Bookkeeper (men only), Philippine Service.
Civil engineer, Departmental Service.
Civil engineer, Philippine Service.
Civil engineer and draftsman.
Civil engineer and superintendent of construction.
Civil engineer student.
*Clerk (male and female), Departmental Service.
Computer:

Coast and Geodetic Survey.
Nautical Almanac Office.
Naval Observatory.
Supervising Architect's Office.

Draftsman:

Apprentice, Ordnance Department.
Architectural.
Copyist, topographic.
Engineer.
Heating and ventilating.
Junior architectural.
Mechanical, Isthmian Canal Service.
Topographic, Departmental Service.
Topographic, Isthmian Canal Service.

Electrotyper-stereotyper.
Engineer, Indian Service.
Farmer, Indian Service.
Farmer with knowledge of irrigation.

Fish culturist.
Forest assistant, Forest Service.
Forest assistant, Philippine Service.
Kindergarten teacher, Indian Service.
Local and assistant inspector of boilers.
Local and assistant inspector of hulls.
Matron, Indian Service.
Observer, Weather Bureau.
Pharmacist, Public Health and Marine-Hospital Service.
Physician, Indian Service.
Physician, Philippine Service.
Postal clerk, Isthmian Canal Service.
Press feeder, cylinder and platen.
Pressman.
Railway mail clerk.
Scientific assistant.
Stenographer, Departmental Service.
Stenographer and typewriter, Departmental, Isthmian Canal, and Philippine Services.
Superintendent of construction.
Surgeon, Departmental Service.
Surveyor, Philippine Service.
Teacher, Indian Service.
Teacher, Philippine Service.
Trained nurse, Indian Service.
Trained nurse, Isthmian Canal Service.
Trained nurse, Philippine Service.
Typewriter, Departmental Service.
Veterinarian, Philippine Service.
Veterinary inspector, Department of Agriculture.

Application forms and information in regard to these examinations may be obtained by addressing the U. S. Civil Service Commission, Washington, D. C., or the Secretary of the Board of Examiners at the following-named places: Post-office, Boston, Mass., Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago, Ill., St. Paul, Minn., Denver, Colo., San Francisco, Cal.; Custom-house, New York, N. Y., New Orleans, La.; Old custom-house, St. Louis, Mo.

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Volume II

SATURDAY, MARCH 27, 1909

Number 2

THE ISTHMIAN CANAL.

By LIEUT. COL. GEO. W. GOETHALS, U. S. Army,
Chairman and Chief Engineer, Isthmian Canal Commission.

A canal connecting the Atlantic and Pacific oceans has occupied public attention for upward of four centuries. During which period various routes have been proposed, each having certain special or peculiar advantages. It was not until the nineteenth century, however, that any definite action was taken looking toward its accomplishment.

In 1876 an organization was perfected in France for making surveys and collecting data on which to base the construction of a canal across the Isthmus of Panama, and in 1878 a concession for prosecuting the work was secured from the Colombian Government.

In May, 1879, an international congress was convened under the auspices of Ferdinand de Lesseps, to consider the question of the best location and plan of the canal. This congress, after a two weeks' session, decided in favor of the Panama route and of a sea-level canal without locks. De Lesseps's success with the Suez Canal made him a strong advocate of the sea-level type, and his opinion had considerable influence in the final decision.

Immediately following this action the Panama Canal Company was organized under the general laws of France, with Ferdinand de Lesseps as its president. The concession granted in 1878 by Colombia was purchased by the company, and the stock was successfully floated in December, 1880. The two years following were devoted largely to surveys, examinations, and preliminary work. In the first plan adopted the canal was to be 29.5 feet deep, with a ruling bottom width of 72 feet. Leaving Colon, the canal passed through low ground to the valley of the Chagres River at Gatun, a distance of about 6 miles; thence through this valley, for 21 miles, to Obispo, where, leaving the river, it crossed the continental divide at Culebra by means of a tunnel, and reached the Pacific through the valley of the Rio Grande. The difference in the tides of the two oceans, 9 inches in either direction from the mean in the Atlantic and from 9 to 11 feet from the same datum in the Pacific, was to be overcome and the final currents reduced by a proper sloping of the bottom of the Pacific portion of the canal. No provisions were made for the control of the Chagres River.

In the early eighties after a study of the flow due to the tidal differences a tidal lock near the Pacific was provided. Various schemes were also proposed for the control of the Chagres, the most prominent being the construction of a dam at Gamboa. The dam as proposed afterwards proved to be impracticable, and this problem remained, for the time being, unsolved. The tunnel through the divide was also abandoned in favor of an open cut.

Work was prosecuted on the sea-level canal until 1887, when a change to the lock type was made, in order to secure the use of the canal for navigation as soon as possible. It was agreed at that time that the change in plan did not contemplate abandonment of the sea-level canal, which was ultimately to be secured, but merely its postponement for the time being. In this new plan the summit level was placed above the flood line of the Chagres River, to be supplied with water from that stream by pumps. Work was pushed forward until 1889, when the company went into bankruptcy; and on February 4 of that year a liquidator was appointed to take charge of its affairs. Work was suspended on May 15, 1889. The New Panama Canal Company was organized in October, 1894, when work was again

resumed, on the plan recommended by a commission of engineers.

This plan contemplated a sea-level canal from Limon Bay to Bohio, where a dam across the valley created a lake extending to Bas Obispo, the difference in level being overcome by two locks; the summit level extended from Bas Obispo to Paraiso, reached by two more locks, and was supplied with water by a feeder from an artificial reservoir created by a dam at Alhajuela, in the upper Chagres Valley. Four locks were located on the Pacific side, the two middle ones at Pedro Miguel combined in a flight.

A second or alternative plan was proposed at the same time, by which the summit level was to be a lake formed by the Bohio dam, fed directly by the Chagres. Work was continued on this plan until the rights and property of the new company were purchased by the United States.

The United States, not unmindful of the advantages of an isthmian canal, had from time to time made investigations and surveys of the various routes. With a view to government ownership and control Congress directed an investigation of the Nicaraguan Canal for which a concession had been granted to a private company. The resulting report brought about such a discussion of the advantages of the Panama route to the Nicaraguan route, that by an act of Congress, approved March 3, 1889, a commission was appointed to "make full and complete investigation of the Isthmus of Panama, with a view to the construction of a canal . . . to connect the Atlantic and Pacific oceans . . . and particularly to investigate the two routes known respectively as the Nicaragua route and the Panama route, with a view to determining the most practicable and feasible route for such canal, together with the approximate and probable cost of constructing a canal at each of the two or more of said routes."

The commission reported on November 16, 1901, in favor of Panama, and recommended the lock type of canal. The plan consisted of a sea-level section from Colon to Bohio, where a dam across the Chagres Valley created a summit level 82 to 96 feet above the sea, reached by two locks. The lake or summit level extended from Bohio to Pedro Miguel, where two locks connected it with a pool 28 feet above mean tide, extending to Miraflores, the location of the final lock. The ruling bottom width of the canal prism was fixed at 150 feet, increased at the curves and in the submerged channels. In Panama Bay the width was fixed at 200 feet, and in the artificial channel in Limon Bay 500 feet was adopted, with turning places 800 feet wide. The minimum depth was 35 feet, and the locks were to have usable lengths of 740 feet and widths of 84 feet. The commission assessed the value of the rights, franchises, concessions, lands, unfinished work, plans, and other property, including the railroad of the New Panama Canal Company, at \$40,000,000.

By act of Congress, approved June 28, 1902, the President of the United States was authorized to acquire, at a cost not exceeding \$40,000,000, the property rights of the New Panama Canal Company on the Isthmus of Panama, and also to secure from the Republic of Colombia perpetual control of a strip of land not less than 6 miles wide, extending from the Caribbean Sea to the Pacific Ocean, and "the right . . . to excavate, construct, and to perpetually maintain, operate, and protect thereon a canal of such depth and capacity as will afford convenient passage of ships of the greatest tonnage and draft now in use."

In event the provisions for the purchase, and for securing the necessary concession from Colombia could not be carried out, the President was authorized to secure the rights necessary for the construction of the Nicaraguan Canal.

The law also provided, after the foregoing arrangements had been perfected, that "the President shall then, through the Isthmian Canal Commission * * * cause to be excavated, constructed, and completed a canal from the Caribbean Sea to the Pacific Ocean. Such canal shall be of sufficient capacity and depth as shall afford convenient passage for vessels of the largest tonnage and greatest draft now in use, and such as may be reasonably anticipated."

To enable the President to carry out these provisions certain sums were appropriated and a bond issue, not to exceed one hundred and thirty millions of dollars, was authorized. By this act Congress, in accepting the estimates accompanying the report of the commission of 1901, adopted the type proposed by the board, or a lock canal.

Pursuant to the legislation, negotiations were entered into with Colombia and with the New Panama Canal Company, with the end that a treaty was made with the Republic of Panama granting to the United States control of a 10-mile strip, constituting the Canal Zone, with the right to construct, maintain, and operate a canal. This treaty was ratified by the Republic of Panama on December 2, 1903, and by the United States on February 23, 1904.

The formal transfer of the property of the New Panama Canal Company on the Isthmus was made on May 4, 1904, after which the United States began the organization of a force for the construction of the lock type of canal, in the meantime continuing the excavation by utilizing the French material and equipment and such labor as was procurable on the Isthmus.

The question of a sea-level canal was again agitated, and secured such recognition that the President convened an international board of engineers, consisting of 13 members, to assemble at Washington on the 1st day of September, 1905, for the purpose of considering the various plans for the construction of the canal that would be submitted to it.

The plans submitted may be briefly summarized as—

(1) That of the commission of 1901, which has already been explained.

(2) A lock canal with terminal lakes proposed by Mr. Lindon W. Bates, and for which three projects were proposed. The one which he appeared to favor contemplated a summit level of 62 feet above the sea, created by a dam at Bohio, and an intermediate level of 33½ feet above mean tide, effected by a dam at Mindi. This plan provided four locks—at Mindi, Bohio, Pedro Miguel, and Sosa. A variant of the plan contemplated a dam at Gatun instead of at Bohio, showing that, at least for a 30-foot head, the Gatun location was not considered by him as unfavorable or offering any difficulties respecting the foundations. His other plans were modifications of this, the summit levels being 27 or 62 feet, but in each instance the lock type was advocated.

(3) The plan proposed by Mr. Bunau-Varilla, carried out the ideas of the first French company, namely, the construction of a lock canal with a summit level 130 feet above mean tide, to be ultimately converted into a sea-level canal, or what he calls the Straits of Panama. The locks were to be constructed so that as the levels were deepened by dredging they could be eliminated, navigation continuing during the enlargement and transformation. The material removed by the dredges was to be deposited in the lake formed of the upper Chagres River by a dam at Gamboa, and any suitable locations in the various pools between the locks. In commenting on this plan the Board of Consulting Engineers concluded that—

"After a full and careful consideration of all the features of Mr. Bunau-Varilla's plan, the board is of the opinion that it should not be adopted for the Panama Canal for the following reasons:

"1. The construction of the large locks required under the present law and necessary for the accommodation of the traffic seeking the canal after its completion makes it quite impossible to complete the preliminary lock canal even nearly within the period stated.

"2. The excessive cost of transformation added to the loss of costly locks and other appurtenant structures required by the preliminary lock canal.

"3. If the lock canal is likely to be retained for many years, it should be made for the most efficient service, and not be encumbered with modifications in lock construction which would prove inconvenient in use."

(4) A plan proposed by Maj. Cassius E. Gillette, a lock canal with a summit level 100 feet above mean tide by the construction of dam across the Chagres Valley at Gatun.

No sea-level plan was submitted for consideration, so that the board outlined a general plan of its own, and for purposes of comparison adopted as the lock type a 60-foot summit level canal. Two levels were used, the summit level was carried by an earth dam at Bohio, and the intermediate level by an earth dam at Gatun, each dam sustaining a head of 30 feet. It is to be noted that no difficulties were anticipated in the construction of these dams, and there was no dread or fear of the foundations.

As the result of its deliberations, the board submitted a majority report and a minority report signed by five of its members, the former advocating a sea-level canal and the latter a lock canal, with the summit level 85 feet above mean tide.

The Isthmian Canal Commission, with one dissenting voice, recommended to the President the adoption of the lock type recommended by the minority, which was also strongly advocated by the then chief engineer, Mr. John F. Stevens. The President, in the message to Congress, dated February 19, 1906, stated:

"The law now on our statute books seems to contemplate a lock canal. In my judgment a lock canal, as herein recommended, is advisable. If the Congress directs that a sea-level canal be constructed, its direction will, of course, be carried out; otherwise the canal will be built on substantially the plan for a lock canal outlined in the accompanying papers, such changes being made, of course, as may be found actually necessary, including possibly the change recommended by the Secretary of War as to the site of the dam on the Pacific side."

On June 29, 1906, Congress provided that a lock type of canal be constructed across the Isthmus of Panama, of the general type proposed by the minority of the Board of Consulting Engineers, and work has continued along these lines. As originally proposed, the plan consisted of a practically straight channel 500 feet wide, 41 feet deep from deep water in the Caribbean to Gatun, where an ascent to the 85-foot level was made by three locks in flight. The level is maintained by a dam approximately 7,700 feet long, one-half mile wide at the base, 100 feet wide at the top, constructed to 135 feet above mean tide. The lake formed by this dam, 171 square miles in extent, carried navigation to Pedro Miguel, where a lock of 30 feet lift carried the vessel down to a lake 55 feet above mean tide, extending to Sosa Hill, where two locks overcame the difference of level between the lake surface and the Pacific. Nineteen and eight-hundredths miles of the distance from Gatun to Sosa Hill had a channel 1,000 feet at the bottom, a minimum channel for 4.1-2 miles through Culebra of 200 feet at the bottom. The balance of the distance varied in width to 800 feet, the larger portion of the entire canal being not less than 500 feet. The depth of water was fixed at 45 feet. The lake assured a perfect control of the Chagres River.

Certain changes have been made in the original project, the most important being the withdrawal of the locks from Sosa to Miraflores, which was recommended and adopted in December, 1907. This resulted in a change in the direction of the channel in Panama Bay. A breakwater is being constructed from Sosa to Naos Island which, by cutting off the silt-bearing cross current, which has always been troublesome, protects the channel against silting.

A second change is the widening of the 4.1-2 miles of Culebra cut to a width of 300 feet at the bottom. This was done by executive order and was not made on the recommendation of the commission.

A third change is the location of the breakwaters in Colon Harbor. The necessity for these breakwaters was made apparent in the latter part of January, when a storm of some magnitude seriously interfered with shipping. As originally proposed for both the sea level and lock types, the break-

waters were parallel to the axis of the channel excavated in Limon Bay. If so constructed, sufficient area would not be given to dissipate the waves entering head on into the channel, and they would not afford much, if any, protection to shipping. These breakwaters are to be built out from Manzanillo Island and Toro Point, so as to give a sheltered anchorage, and also an opportunity for such expansion to the waves as to break them up.

A fourth change is in the dimensions of the locks. As proposed by the minority they were 900 feet by 95 feet, usable lengths and widths. These dimensions were subsequently changed by the commission at the instigation of the President to 100 feet wide and 1,000 feet long. The width was again increased to 110 feet on the recommendation of the General Board of the Navy, so as to accommodate any possible increase in beam of future battleships.

The Gatun dam is to consist of two piles of rock 1,200 feet apart and carried up to 60 feet above mean tide. The space between them and up to the required height is to be filled by selected material deposited in place by the hydraulic process. During the construction of the north side of the south rock pile a slip occurred in November last at the crossing of the French Canal. This was the fifth slip that occurred at this point, the rock settling to some extent, but generally slipping sidewise until the angle of repose was reached. In this connection it is to be noted that the silt deposits in the channel had not been removed. This slip would probably have passed unnoticed, as did the former ones, but for the fact that at the time a flood in the Chagres River had attained such proportions as to cover a portion of the Panama Railroad tracks just south of Gatun. A newspaper correspondent, going from Colon to Panama, saw his opportunity for a sensational story, and attributed the flood to the dropping of the Gatun dam into the subterranean lake under the dam and locks, which another faker had previously discovered, and the news of the destruction of the Gatun dam was cabled to the States.

The slip did not affect the south slope or side of the rock pile. It was entirely local and did not in any way interfere with the work. It would not have occurred had steps been taken during construction to give the proper slope to the rock pile, but economy of time and money did not warrant such precaution. As stated by one of the engineering publications, "We can state from actual personal examination that this incident has absolutely no engineering significance."

As a result, however, the public is told that dire disaster will follow the undertaking unless the present plans are abandoned and the Straits of Panama constructed, that is a sea-level canal across the Isthmus 500 to 600 feet wide. To accomplish this, however, a lock canal must be built first, and subsequently widened and deepened until the ideal is reached. There is no data available for such a canal. With mountains instead of hills to be removed estimates are, of course, impossible; so that the most optimistic figures, suitable alone to the ideal, are offered as a bait. In any event it is also claimed that Bohio should have been selected for the site of the dam in lieu of Gatun.

As between Gatun and Bohio, at both places the distance from the natural surface to the rock is so great that any attempt to found the dam on the last-named material will be attended by enormous expense. At Bohio the gorge in its lower strata is filled with water-bearing gravel and to make the dam safe the underflow through these strata would have to be cut off by some means extending down 165 feet. No such strata exists at Gatun, so, for this reason alone, leaving out of consideration the advantages in the control of the Chagres River and to navigation by reason of the greater extent of lake, Gatun offers the better site.

Both the majority and minority of the Board of Consulting Engineers considered Gatun a suitable location for a dam; the former adopted it for the typical lock canal used for comparison with the sea-level canal, the latter for the 85-foot summit-level canal. The majority, however, feared the existence of an underground flow in case of the higher dam, but investigations have failed to disclose any. The great mass of underlying material

is not sandy and gravelly deposits as was supposed, but a mixture of these materials so firmly cemented together with clay as to make the strata in which they occur impervious to water.

I venture the statement, without fear of contradiction, that the site of no public or private work of any kind has received such a thorough and exhaustive examination and investigation as the foundation of the dam and locks at Gatun. There is no longer a doubt concerning any of the underlying strata; neither the impermeability, nor the ability of the foundations to bear the loads that will be brought upon them, can be questioned if the data be carefully and impartially examined. The investigations fail to disclose any water-bearing strata or the existence of that underground stream with a discharge equal to the Chagres River itself, which was recently asserted as a fact on the floor of the Senate.

In this connection the statement is also made that the change in the location of the locks at the Pacific end was due to our demonstrated inability to construct the dams, and that as the foundation at Gatun is of the same material, it necessarily followed that the Gatun dam is also impossible of accomplishment.

The majority of the Board of Consulting Engineers in its report states that—

"The dam at La Boca, between San Juan Point and the Sosa Hill, unless carried down to bed rock at that location, would be placed upon a far worse foundation than that proposed at Gatun or Mindi. The La Boca site is one covered by an ooze of mud or silt, with some sandy material overlying the rock. * * * Unless some feature equivalent to that of a heavy masonry core characterized the design of the dam at this point, or unless a resort be made to dredging down to bed rock or near to it, and refilling with suitable material, or an earth dam at this location be made very massive, it would be in grave danger of being pushed bodily out of place by the pressure due to the head of water in the reservoir."

We found the material in the foundations of these dams not only worse than at Gatun, but in nowise comparable. In the former a covering of ooze and silt, in the latter firm ground with a few soft or marshy spots.

I know that the La Boca dams could be built to safely withstand the heads of water in the resulting lake by adopting either the method of dredging out the ooze or by giving massive dimensions to the superimposed structure. The engineering committee and the majority of the commission preferred the former method. In either case the cost would exceed the original estimates, and in addition it is a military blunder to push the locks to and beyond the proper line of defense, especially when the canal is a military necessity to this country. That the dams could be built is evidenced by the fact that the west toe of the Sosa-Corozal dam was carried across the valley on the ooze as an embankment for a railroad to be utilized in transporting stone for the Pacific locks. The charge, therefore, that the dams could not be constructed is not true, and the analogy at Gatun does not follow. Nor is there any truth in the statement that the military necessity was an afterthought as has been insinuated.

I visited the Isthmus in 1905 with a committee of the Board of National Coast Defenses, with which I was associated at that time, for a study of the defenses of the canal. When the location of the locks at the Pacific end was fixed, I was directed to call the Secretary of War's attention to the military necessity of withdrawing the locks to the interior. This I did, with the result that in forwarding the report of the Board of Consulting Engineers to the President he calls attention to the fact as follows:

"The great objection to the locks at Sosa Hill is the possibility of their destruction by the fire from an enemy's ship. If, as has been suggested to me by officers of this department entitled to speak with authority on military subjects, these locks may be located against and behind Sosa Hill in such a way as to use the hill as a protection against such fire, then economy would lead to the retention of this lake. * * * If, however, Sosa Hill will not afford a site with such protection, then it seems to me wiser to place the locks at Miraflores."

In forwarding the report to Congress, the President calls attention to the change recommended by the Secretary of War in the location of the locks on the Pacific side. The so-called after-

thought appears, therefore, as a conclusion reached long before I had any connection with the work.

Discredit is also thrown on the Gatun dam because there has been a desire to reduce the height from 135 to 105 feet. The original height was arbitrarily fixed to secure an excess of weight, so as to fully compress the underlying material supposed to be largely silt deposited by the river. Subsequent investigations show that the supposed compressibility does not exist; that a marine, not a river deposit is encountered. The greater the height of the dam the greater the difficulty of constructing the upper portion, and the greater the cost, both in time and money. From present available data, if the lake should take the total discharge of the Chagres River, the water surface would not exceed 90 feet; the top of the locks, 92 feet above sea level, would permit escape of the water long before it could reach the crest of the dam. Why then go to the expense of extra height of the dam, and what is to be gained thereby? Assuming the crest of the dam as 100 feet wide, uniform slopes from the rock piles would give a height of 105 feet, and this height was suggested. Because as an additional reason it was mentioned that the pressure over the base would be more uniformly distributed by a dam with the cross section proposed, the opponents of the present project, without ascertaining the facts, point to the change as a desire to secure a uniform base pressure, and use it as an argument against the stability of the foundation.

Much also has been made of the fact that in the testimony before one of the congressional committees mention was made of securing the stability of the superstructure by balancing the dam on the underlying material. Naturally the testimony is read and discussed in such a way as to leave the impression that the entire dam is to be so constructed. The ground to be covered by the dam is crossed by three water courses, the Chagres River, the French Canal and the West Diversion, and between these streams the ground is undulating, Spillway Hill reaching a height of 110 feet above sea level. It is not remarkable or unprecedented that there should be depressions which undrained become soft with the excessive rainfall. Except for these the ground is firm. It is in the crossing of these soft spots that slips have occurred and are liable to occur, and to which the balancing method referred. They are relatively small in extent and when drained or filled cause no trouble, as experience at the La Boca embankment clearly proves.

As previously stated, the Gatun dam satisfactorily solves the problem of the control of the Chagres, and there should be no doubt in the mind of anyone who impartially examines the data that the solution is not only feasible, but absolutely safe. As there has never been any question raised as to the safety and stability of the dams at Pedro Miguel and Miraflores, with the Gatun dam accepted, other things being equal, the relative merits of the lock versus sea-level canal must rest upon the ease and safety of navigation offered by the two types.

In the sea-level type offered in lieu of the lock type already described, the Chagres River is controlled by a masonry dam across the valley at Gamboa 4,500 feet long, 750 feet of which is subject to a pressure due to a head of 170 feet during the extreme flood stages of the river. Proper sluice gates are proposed for discharging the river into the canal. The difference in tides is overcome by means of a lock on the Pacific side in the vicinity of Sosa Hill. While provisions are made for damming or diverting some of the streams that would otherwise enter the canal prism, not less than 22 flow directly into the canal, with no provision to control the currents or check the deposits of material carried by them during flood stages.

The prism of the canal is to have a bottom width of 150 feet through the earth sections, or for nearly one-half its length, and a 200-foot bottom width through the rock sections. Nineteen miles of the length are made of curves so that the proposed sea-level canal is not a wide, straight, and open channel, connecting the two oceans, but a narrow tortuous ditch, with varying currents of unknown strength, impeded by a lock, and threatened by a dam resisting a pressure due to a head twice as great as that at Gatun.

To be sure, the partisans of the sea-level type are now proposing to eliminate both the Gamboa Dam and the tidal lock by making the channel so wide as to reduce the currents that result

from the discharge of the Chagres and the difference in tides, but fail to explain how they purpose to control or divert the Chagres, the bed of which will be 50 feet above the water surface of the canal at the juncture. As data is not available for preparing accurate estimates for even such a sea-level type as was originally offered, neither they nor any one else can offer any figures as to time and cost of construction of such a canal as they now advocate.

In any comparison, therefore, we must confine our attention to the lock type as now building, and a sea-level canal as offered by the board of engineers, and not by the idealist.

So far as the two prisms are concerned, for ease and safety of navigation the lock type is better because of the greater widths of channels, fewer and easier curves, and freedom from objectionable and troublesome currents, both from the Chagres and its tributaries. This must be admitted by all, but the exponents of the sea-level type concentrate their attention on the obstructions and dangers that the locks constitute in the lock type, and also on the dangers that will result from the failure of the Gatun dam, forgetting that at least equally great disaster must follow the failure of the Gamboa dam. The lock in the sea-level canal is not mentioned, probably because the danger is not so great, since there is but one.

Experience shows that the risks to ships in narrow waterways are material and important. In such a channel as the original Suez Canal the delays and losses to commerce were great, and the danger to ships considerable; although the benefit of the widening is striking, this is true even now.

It is well known that the narrow channels connecting the Great Lakes have been obstructed repeatedly by vessels aground or wrecked in such a manner as to block traffic. Even in the entrances to our seaports there is a frequency of accidents, which illustrate the difficulties encountered in navigating narrow and tortuous channels.

Accidents in locks have been relatively few, and none of a serious nature have occurred at the St. Marys Falls Canal during fifty-four years of its use. The risks to ships in such a narrow waterway, as proposed for the sea-level canal at Panama, far outweigh all hazards in the proposed lock canal, provided the latter is built so as to minimize the chance of accident at the locks. This is met by providing every possible safety device, by building the locks in duplicate and by the installation of a system by which the vessels will be controlled by powerful electric machinery on the lock walls, thus avoiding mistakes on the part of the vessels' crew or engine-room staff, which once led to an accident at the Manchester Ship Canal.

Again, it is objected that the size of the locks limits the canal to vessels which can use them. This is true. The present lock designs provide intermediate gates dividing the locks into lengths of 600 and 400 feet. About 98 per cent of all the ships, including the largest battleships now building, can be passed through the 600-foot lengths, and the total lock length will accommodate the largest commercial vessels now building, which, I believe, are 1,000 feet long and 88-foot beam.

It is true that ships may increase in size so as to make the present locks obsolete, but the largest ships now afloat can not navigate the present Suez Canal, nor the proposed sea-level canal at Panama. It must also be remembered that the commerce of the world is carried by the medium-sized vessels, the length of only one of the many ships using the Suez Canal being greater than 600 feet.

The General Board of the Navy is on record that 110 foot width will be ample for the future needs of the Navy, and naval construction of the future will be limited not alone by the locks of the Panama Canal, but also by the available dry docks. Ships that can not use locks 1,000 feet by 110 feet can not use a 150-foot sea-level canal, nor can this be so easily and economically increased and maintained as is made to appear by its advocates.

Increasing the width of Culebra cut, as recently ordered, from 200 to 300 feet is advanced as an argument to show that the locks are too narrow. Ships do not navigate the locks in the sense that they do the canal prism, and the wider the channel the easier will be navigation. On account of slides that developed in Culebra cut considerably more additional work was made necessary in the upper reaches of the divide than was contem-

plated, and the advantages of the increased width to navigation were so great, compared with the relative amount of material to be removed in order to secure it, that the President ordered it. By this action the width of the locks is in nowise called into question.

The water supply for lockages was so exhaustively treated by the minority of the board that it has not been called into question by anyone who has carefully considered the report and data submitted therewith. Recently, however, the theory has been advanced that the water of the lake may seep through the adjacent hills or through the bottom, and is significantly referred to as a mooted question. This possibility is emphasized by the seamy quality of the rock when exposed. The French plans, with Bohio Lake, were the result of careful and protracted study and investigation, and nothing of the kind was anticipated. The commission of 1901 was not in doubt of the resisting power of the hill covering such a flow. The report of the geologist on the general formation of the country does not lead to any such dread or fear. The reservoirs, constructed in the hills of the same geological formation as the entire lake area, are not affected by any such leakage or seepage. At Black Swamp, an extensive area between Bohio and Gatun, the water stands above the level of the Chagres—which is within half a mile—and also above sea level the level of the water remains unchanged, clearly indicating no such leakage.

Toward the close of the last dry season certain measurements of the Chagres at Bohio indicated a less discharge there than at Gamboa; this was subsequently exploded by other observations which showed that the first ones were in error. Notwithstanding this, and in spite of the many evidences of the tightness of the earth covering, the possibility of a flow through the hills was advanced and was seized upon as another argument against the lock type.

The Board of Consulting Engineers estimated the cost of the lock type of canal at \$139,705,200, and of the sea-level canal at \$247,021,000, excluding the cost of sanitation, civil government, the purchase price, and interest on the investment. These sums were for construction purposes only.

I ventured a guess that the construction of the lock type of canal would approach \$300,000,000, and without stopping to consider that the same causes which led to an increase in cost over the original estimates for the lock canal must affect equally the sea-level type, the advocates of the latter argued that the excess of the new estimates was an additional reason why the lock type should be abandoned in favor of the sea-level canal.

The estimated cost by the present commission for completing the adopted project, excluding the items let out by the Board of Consulting Engineers, is placed at \$297,766,000. If to this be added the estimated cost of sanitation and civil government until the completion of the work, and the \$50,000,000 purchase price, the total cost to the United States of the lock type of canal will amount to \$375,201,000. In the preparation of these estimates there are no unknown factors.

The estimated cost of the sea-level canal for construction alone sums up to \$477,601,000, and if to this be added the cost of sanitation and civil government up to the time of the completion of the canal, which will be at least six years later than the lock canal, and the purchase price, the total cost to the United States will aggregate \$563,000,000. In this case, however, parts of the estimate are more or less conjectural—such as the cost of diverting the Chagres to permit the building of the Gamboa dam and the cost of constructing the dam itself. Much has been said of the disadvantage of the seamy rock in connection with some experiments made at Spillway Hill test pit and of the so-called "indurated clay," yet these same disadvantages apply to the foundation at Gamboa and the same class of material must be dealt with. The cost of constructing and maintaining a channel through the swamps of the lower Chagres is an unknown factor, and no schemes have been developed for controlling the various streams that are encountered and that must be reckoned with along the route of the canal. So that the sea-level estimates have not the accuracy of those for the lock type.

(To be continued.)

NORTHERN COAST.

Seattle—McKenzie Bros. of Vancouver have rechartered the Norwegian steamer *Transit*. The *Transit* will run between British Columbia and Alaska.

Portland—Captain A. L. Betts, who was in charge of the steamer *Olsen* and *Mahoney* when that vessel collided with the Burnside-street bridge, was completely exonerated by U. S. Inspectors Edwards and Fuller. The gist of the testimony was that cross currents were the direct cause of the accident. Captain Betts stated that there would be a terrible marine disaster if some steps were not taken to protect the bridges. It would be a very easy and inexpensive matter to protect the bridges with dolphins, according to the captain.

Seattle—The Marine Hospital Service issued orders that the fumigation of all vessels arriving in Puget Sound should be stopped. This practice was instigated about a year ago on account of the bubonic plague scare of San Francisco. Local steamship men are pleased with the order to rescind the precautionary measure. And although it may have been imperative at the time there has been no danger for a long period.

Victoria—The Canadian Pacific R. R. Co. is to have a new steel twin screw of greater dimensions than the company's steamer *Charmer*. Plans and specifications are now being drawn up and bids will be called for shortly.

Eureka—The new slip constructed by the county is now completed and is a great improvement over the old one, as it provides a separate landing for row boats and launches.

Seattle—Gov. Hay has signed the bill appropriating \$250,000 to construct the Lake Washington Canal. Work will commence on the project in June and the canal will be of the lock type, 50 feet wide and 17 feet deep, making it a sufficient size to allow the passage of all Puget Sound steamers from the Sound into lakes Union and Washington.

Portland—The Port of Portland Commission have decided to convert the pilot schooner *Joseph Pulitzer* into a motor boat by installing engines powerful enough to go against the tide and currents when the wind is unfavorable. The unreliable service rendered by the schooner in the past has been cause for just complaint from sea captains.

An immense water spout narrowly escaped striking the oil tanker *U. S. Porter* while off the southern Oregon coast. This is the first water spout reported in three years, the last one almost collided with the steam schooner *Andy Mahoney*.

Victoria—The marine department purchased the steam trawler *Newington* from R. J. Fader for \$42,000. The vessel will be used as a lighthouse tender.

The schooner *Lizzie S. Sorenson* of Seattle is in the bay for repairs. A 150 horsepower gasoline engine will be installed, and upon completion of the repairs the schooner will proceed to Seattle to outfit for the whaling season.

The Ship Owners Association of the Pacific Coast have petitioned the Lighthouse Board of Washington for a higher order light at Point Arguello. The present fourth order light penetrates the thick, stormy weather prevalent in that section but a very short distance from shore.

The eighteen mutinous Chinese, who composed the crew of the *Hendrik Ibsen*, were deported on the *Nippon Maru*, thus ending the complications that it was feared would arise in the case.

LOSS OF THE R. D. INMAN.

An unfortunate error brought total destruction to the steamer R. D. Inman on Saturday night last, shortly after leaving this port, en route to Portland.

The story is best told in the words of Captain Chester J. Lancaster, and by recalling to mind the unusual weather conditions of Saturday night at about the time the steamer was wrecked.

"Leaving the harbor at 6 o'clock," said Captain Lancaster, "we proceeded towards the heads, being in ballast; apprehension was felt from weather conditions prevailing at the time if in cargo; reaching the north channel fairly under way, and while on the bridge with Second Officer Ivar Ulvestad, I observed what I supposed to be a burning vessel on our eastward bow, and immediately ordered our course to be altered to render assistance to the distressed. Shortly after changing our course we were startled by the dreadful news, breakers ahead, from the look-out at the bow, and almost momentarily the vessel crunched on the reef, this before the engines could be stopped. Not until the masts and smoke-stack listed to starboard did I know that our vessel was helpless. The crew had no difficulty in reaching the beach, only 500 feet distant."



The R. D. Inman was built in Marshfield, Oregon, in 1907, at a cost of \$120,000, had a gross of 763.12 and 427.80 net tonnage, 186½ feet long, 39 feet breadth and depth of 14 feet, with cargo capacity of 1,000,000 feet of lumber.

F. S. Loop, managing owner of the R. D. Inman, stated that the vessel would be a total loss, was insured for \$100,000, and would be abandoned, and that by the process of wrecking \$10,000 could be saved by the removal of the machinery.

Much sympathy has been expressed for Captain Lancaster, being a young man and capable seaman, having held several positions of trust on this coast, is well and favorably known, this being his first serious accident, and presumably while on a mission of mercy. Captain Turner remarked that there is a strong current, with a set inshore, where the steamer left her course. The pilots claim that Captain Lancaster is not the first to have been misled by beach fires in this vicinity, and who have been prompted by the same charitable motives which brought disaster to Captain Lancaster.

CHANGES AMONG SHIP'S OFFICERS.

W. Mooney went out on the S. S. Washtenaw as second assistant engineer.

A. Moncaster, formerly first assistant engineer of the S. S. Mongolia, has been appointed chief engineer of the S. S. Siberia, relieving J. Morris.

B. Townsend relieved J. Hansen, G. L. Harris relieved C. R. True and O. M. Pettingill relieved J. McCarthy; these were the changes among the junior engineers on the S. S. Siberia.

E. Mooney, first assistant engineer of the S. S. Rose City laid off for one trip on account of sickness in the family. His place was taken by Second Assistant Engineer C. Stevens. Third Assistant Engineer E. Lahti went out second assistant and L. Kenny was appointed third assistant.

Second Officer Barneson is off the S. S. Rose City. His position was taken by Third Officer Parker. Fitzsimmons was appointed third officer.

Captain R. J. Dunham, formerly of the S. S. Roanoke, has been appointed master of the Portland-Tillamook steamer Argo. He succeeds Captain E. Anderson, resigned.

C. Barr has left the S. S. Siberia as fourth officer. His place was taken by C. Clarkson, formerly fifth officer. F. Leach was appointed in his place.

The officers of the S. S. Umatilla are Captain Thos. Riley, First Officer T. Matheson, Second Officer W. Harrison, Third Officer A. Mondini, Fourth Officer G. Harris, Chief Engineer P. Shepard, G. Osborn, first assistant; A. Johnson, second assistant; H. Towle, third assistant.

Captain Hall has relieved Captain Gielow, temporarily, on the S. S. City of Topeka.

B. Jackson relieved J. Seoby as first officer of the S. S. City of Pueblo.

J. Turner relieved H. Haward as second assistant engineer of the S. S. Col. E. L. Drake.

J. McEwing has left the S. S. Olsen and Mahony as second assistant engineer, his place being taken by Ray Gunzell, formerly second assistant engineer of the S. S. Buckman.

H. Fraser went out on the S. S. Buckman as second assistant engineer.

Billie Jackson went as first mate, relieving J. Seoby on the City of Pueblo.

Fourth Officer J. Hftiger has left the S. S. City of Pueblo.

HONOLULU NOTES.

The investigating board have recommended the suspension of Pilot Milton N. Sanders, who was in charge of the U. S. transport Logan at the time of the stranding.

Hawaii—The navy department has completed the revision of the plans and specifications for the new dry dock to be constructed at the Pearl Harbor naval station, Hawaii, to meet the requirements of Congress. The original plans and specifications proposed a dock 1,200 feet in length, but Congress refused to appropriate sufficient funds for a dock of this size, as a result the length was shortened to 620 feet. The only other change on the revised plans is the elimination of the inner dock. At the present size the docks will hold the largest battleship in the course of construction or even contemplated. Bids on the revised plans will be open May 22.

NOTES.

The Kitano-Maru, a new Japanese liner built for the Nippon Yusen Kaisha Co., was recently launched at the Mitsa Bishi shipyards of Nagasaki. The Kitano-Maru is a double screw steel steamer of 8,000 tons gross, with three decks. She is 465 feet long, 56 feet wide and 34½ feet deep, fitted with triple expansion surface condensing engines, capable of developing 7,300 horsepower.

The Psaka Shosen Kaisha Co. is having three sister ships built at the Kawasaki Dockyard, Kobe. The first of the three has just been launched. Tacoma Maru is the name given the new ship. The steamers are to be 6,000 tons gross with a displacement of 11,500.

The German steamer Ella of the Jebesen line was seized at La Union, Salvador, by the Government of the republic. An armed guard was placed on board and the steamer's papers seized and taken ashore to be subjected to a rigid examination. It was thought that the steamer, or those on board, were spies of Nicaragua, with which republic Salvador is at war.

Captain Chas. F. Pond, U. S. inspector of the lighthouse district comprising Oregon, Washington and Alaska, has commenced the survey of the Yukon River and is collecting data prior to compiling a report regarding the feasibility of establishing fifty-eight day marks along that river in American territory to cover a stretch of 1,500 miles. A result of the survey and a report will be sent to the lighthouse board.

The volume of the traffic on this river, during the months it is navigable, surpasses the average conception, and although many less important rivers nearer home have attracted and been given more attention the traffic on the Yukon warrants the expenditures proposed for safety appliances.

The new lumber wharf to be built by the state at the foot of Sixteenth street, is to afford accommodations to all lumber firms operating from San Francisco on an equal basis. The drydocks will be removed shortly. Six steamers can be accommodated at the same time when the proposed lumber wharf is completed.

The Salvadorean gunboat President, recently engaged in combat with the Nicaraguan gunboat Momotombo, was formerly the old tug President of San Francisco. The Salvadorean government bought it and, mounting a few guns on it, created a navy. Their navy at the present time consists of the Presidente, a cruiser, and a fully equipped rowboat, modern in every respect.

After carefully investigating the cause of the explosion on the steamer Weitchpie, U. S. Inspectors John K. Bulger and O. F. Bolles decided that Fireman Elmer Dennis, who lost his life in the accident, was responsible. The explosion was caused by low water in the boiler.

The schooner Marconi, owned by the Simpson Lumber Co., laden with 1,000,000 feet of lumber, was wrecked on the South Spit near Coos Bay bar and is a total loss. No insurance was carried on either the schooner or the cargo and the approximate loss is \$60,000.

The New York Shipbuilding Co. of Camden, N. J., is building two revenue cutters of the highest type, to be detailed on the Pacific coast when completed. The cutters are the Tahoma and Yamacraw, and they will be stationed in the vicinity of Puget Sound for the relief of distressed vessels.



THE SNOHOMISH IN A CLASS INDIVIDUAL.

The Snohomish, which arrived in this port on Saturday, en route from Norfolk to Neah Bay, has the distinction of being the first vessel built by the Government exclusively for life-saving at sea; equipped with every modern convenience and practical device that ingenuity could devise, the Snohomish will enter the service equal to every possible emergency and whim of the elements.

Immediately following the wreck of the steamship Valencia on the coast of Vancouver Island, three years ago, when 136 lives were lost owing mainly to lack of equipment of rescuers, who were unable to render assistance, Congress appropriated \$200,000 for the construction of a life-saving vessel, to be stationed at Neah Bay.

She was built by the Pusey and Jones Company, at Wilmington, Del., is 152 feet long, 29 feet breadth, and draws 15 feet 6 inches, with coal bunkers fully laden; has a 1200 h.p. engine of the triple expansion type, driving a single screw, insuring a speed of 14 knots. The main feature, however, of the Snohomish is the new breeches buoy. The buoy is provided with automatic reel, which travels on a powerful rustless cable 1600 feet long. By this means passengers of a distressed vessel may be landed on the deck of the Snohomish regardless of the condition of the sea.

The method of connecting a distressed vessel with the life-saver required new and special apparatus, which, from a number of tests, has proven highly efficient and satisfactory. This apparatus consists of a line-throwing gun which will carry a whip line 1600 feet from the

Snohomish, and to which is attached the life saving cable, and by which means the cable is brought to the distressed vessel.

Other appliances include fire-fighting devices, powerful suction pumps, self-baling and righting life boats and rafts, search lights, wireless telegraph, water distil, and built in detail for the service required, and also for the rough weather peculiar at Cape Flattery.

The Snohomish made the trip from Norfolk in command of Captain Francis A. Levis, making an average speed of about ten knots for the trip, or ninety-eight days. Captain Levis left this port with the Snohomish on Thursday and will place the vessel in commission at Neah Bay in the shadow of Cape Flattery.

Almost coincident within the hour of the arrival of the Snohomish in this harbor, Captain Levis was called upon to give a finishing touch of his 15,000-mile voyage and to test the life-saving qualities of his vessel, to which he readily responded, putting to sea immediately for the scene of the wreck of the R. D. Inman, but upon arrival found the Inman beyond aid and the crew safely ashore.

SHIPBUILDING NOTES.

Contracts will soon be let by the California & Oregon S. S. Co. of Portland, Oregon, for a new boat, sister ship to the Alliance, to operate between Portland and Coos Bay points.

Major Wood of the Quartermaster's Department at Seattle, Wash., has received authority from Washington to prepare plans for a steamer to be built by the U. S. government, to run between Seattle and Forts Worden, Casey and Flagler. She will be about 400 feet long, capacity of 150 tons freight, and 150 passengers, to cost about \$48,000. Bids will be called for as soon as plans and specifications are complete.

The keel of the new 450 ft. liner for the Matson Navigation Co. was laid March 15 at the yard of the Newport News Shipbuilding Co.

Union Iron Works.

The S. S. James M. Donohue has left the yard after undergoing extensive repairs.

The Governor Markham is on the dry dock, having the temporary wheel replaced by the permanent one.

The dry docks at the foot of Sixteenth street have been moved to a position between the wharves at the shipyard. The new location of the docks will place the Union Iron Works in a position to complete work in the least possible time, as this is the only concern in San Francisco having a dry dock connected with the shops.

N. O. S. S. Argyll is at the yard for a general overhauling, including engine and boiler repairs.

The S. S. Lansing is undergoing miscellaneous engine, boiler and hull repairs.

Moore & Scott.

The rumor is confirmed at the office of the Moore & Scott Iron Works that this firm has taken over the shipbuilding plant of W. A. Boole & Sons, Oakland, and that the possession of the plant, consisting of about nineteen acres of land, in addition to a first class shipbuilding equipment, will be acquired about the end of the month. It is proposed to build a ways capable of lifting a vessel of 5,000 tons. The firm intends to go in for the larger repair work coming up on the bay, in competition with the other large shipbuilding concerns. The price paid for the ways is said to be \$300,000, and the firm will spend an additional \$200,000 in further installations of tools and equipment.

The installation of the winches and hoisting gear for the San Mateo is being rushed to an early completion. Owing to the early date at which the vessel is required it has been necessary to run a night shift on the work. The eight winches being built for the steamer will be completed within the contract time of five weeks. The San Mateo is now laying up in Oakland Creek, but it is expected that the vessel will be brought to the new yard recently acquired by that company in the estuary. The winches are there being installed and it is possible that while there the vessel may be placed on the dock for overhauling and painting preparatory to her entering in the northern trade under her new charterers.

The state fire tug Governor Markham has been turned over to the Moore & Scott Iron Works for a thorough overhauling. The tug has been placed on the Sixteenth street dry dock, where a new propeller is being installed and the tail shaft refitted.

This firm has also a large force of men on the State Dredger No. 3, which is receiving an annual overhauling.

One of the local launch companies of San Francisco bay is having a launch built at the yard of Stone & Van Bergen. The dimensions of the boat are 53 feet in length and 13 feet beam, will draw 6 feet of water and will be equipped with a 100-h. p. local standard gasoline engine. The vessel will be used for towing purposes and a large space on the fore'deck can be used for deck cargo. There will be a cabin at the after end of the vessel, where the handling gear will be installed, and also accommodations for two men.

The Yamashito Marine Engineering Co. bought the British steamer Adato, which went ashore at Ashima, for \$3,000. The Adato was a steel steamer of 3347 tons, 330 feet in length, 45 feet beam and 16 feet depth.

SOUTHERN COAST.

Santa Barbara—Captain Gilbert, skipper of the schooner Baltic, recently found a stick of dynamite in the hold of the vessel. The crew of the boat recently struck for higher wages, and more help, but it is not thought that they would use such dastardly means to gain their end.

San Pedro—The San Pedro and Wilmington pilot bill, drafted by Assemblyman Leeds, passed the Senate and is now in the hands of the Governor. The shippers protested against the one-half pilot dues proposed to be charged deep water vessels entering the harbor of San Pedro whose masters declined the pilot's assistance. A compromise was reached by exempting from taxation coast-wise trade along the Pacific seaboard, from Victoria to Mexico inclusive.

San Pedro—The Jepsen-Ostrander S. S. Co., now operating two steamers, the Ella and Erna, between British Columbia, Mexico, and Central American ports, intend to put six steamers on that run and inaugurate a fourteen-day schedule. The four new steamers to be put on the run are on their way to the coast from Germany.

South Bend—The steamer Shoshone, while outward bound for San Francisco, was swept by a heavy sea, which washed deckload, mainmast and cargo booms overboard. A member of the crew was swept overboard and drowned. The vessel was forced to put back to South Bend for repairs.

Pacific Merchant Marine

Office: 95 MARKET ST., SAN FRANCISCO, CAL.

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ADVERTISING RATES ON APPLICATION
Address All Communications to the Pacific Merchant Marine

The earliest development of the merchant marine in the modern sense of the word was in the Mediterranean, which existed 1,000 years before Christ, when the island of Rhodes possessed a flourishing commerce and merchant marine governed by a code of laws which in part is the foundation of all modern maritime laws, and from which dates the beginning of a study of this subject. And safe to say there is not another subject in the history of the civilized nations of the world which has consumed more real time and energy than that of their commerce. This applies equally to the citizen and statesman. Various nations have honored their military officers in recognition of their achievements in warfare. Lacking material of this kind, recourse was made to earnest thinkers in behalf of the nation's resources. This latter class invariably consisted of men versed in political economy and qualified to discuss this subject in a masterly way, and usually to the advantage of those they represented. Few records of impeachment are known of those who have failed to give at least reasonable returns for the services required of them, if unfortunate enough to have been overlooked by a now appreciative community. The knowledge of having learned the truth and a determination to be true to it remained and invariably proved the foundation stone upon which the individual became identified with the nation's history and prosperity.

"International trade," said John Stuart Mill, "in becoming the principal guarantee of the peace of the world, is the great permanent security for the uninterrupted progress of the ideas, the institutions and the character of the human race." Obliterate this statement from the writings of the earnest truth seeker and sincere thinker, and the popularity of England's greatest philosopher would be incomplete.

Picture Theodore Roosevelt as never having occupied the presidential chair of the United States, but add to his biography his efforts in behalf of rehabilitating the American merchant marine; accept every statement made, criticize his actions and advice on this subject as severely as many have done in other of his official acts; analyze, twist, turn, inspect, do what you will with his efforts in this direction—then find sufficient reason by

which to raise Mr. Roosevelt to the highest pinnacle occupied by American statesmen.

Many other American statesmen will pass into history for their efforts in behalf of the American merchant marine, but as a whole much remains to the discredit of Congress for the past fifty years which has permitted \$200,000,000 per year to be taken out of the pockets of American workmen to be paid to aliens; and this in face of the fact that, according to the U. S. constitution, Congress is given the power to regulate commerce with foreign nations, and among the several states, otherwise interpreted to vest in Congress exclusive power to regulate shipping upon the navigable waters of the United States and as to the American vessels upon the high seas; that the same Congress has allowed the carriage of over-seas trade to dwindle to the extent that American vessels are now carrying less than 10 per cent of the exports of the United States; that the total tonnage of American steamships engaged in foreign trade is exceeded in several instances by foreign private ownership.

This argument may be combated by the fact that we are the most prosperous and happy nation of the earth, but the statement does not establish our increase to prosperity and happiness at a ratio with the decline of our commerce.

If the argument mentioned has merit, let us apply it in the same sense but from another source. If the workingman earned \$3 per day fifty years ago, and the capitalist made \$9, the capitalist owned 75 per cent of the wealth of the country. But if the workman earned \$6 per day this year and the capitalist earns \$24, the capitalist owns 80 per cent of the wealth of the country; and while we may be prosperous and happy we occupy a false position compared to fifty years ago, or in other words we are 5 per cent less prosperous and happy.

COURT NOTES.

John Gavin has begun a libel suit against the Pacific States Trading Company for \$10,000 damages for injuries received while a member of the crew of the John F. Miller. The vessel and ten of the crew were lost at Bear Harbor, Alaska. Gavin lost three fingers and his feet were frozen.

The following marine decision by the U. S. Circuit Court of Appeals is of interest to shippers: The time when a vessel was ready to load or discharge, and consequently when the lay days commenced under a charter party, is a question of fact, and the finding of the trial court thereon, based on the conflicting evidence, will not be disturbed by an Appellate Court, unless clearly erroneous.

The H. D. Bendixsen Shipbuilding Company of Eureka lost a suit for \$10,000 instituted against it by Alexander McCarren. McCarren, while engaged in shifting lumber in the defendant's yard, received injuries to his leg which necessitated amputation.

The escape of an Afghan from the S. S. Siberia has brought to the attention of the immigration authorities the large number of detained aliens that have managed to escape in the last few months. That the escapes received outside aid the authorities have no doubt, and suspicion in this particular case rests on N. Miurea, a Japanese, and Wan Shau, a Chinese, members of the steward's department on the Siberia. Both men were before the commissioners and subjected to a rigid examination, but as the evidence against them was not complete their hearing was continued.



PLEASURE CRAFT



SCHOONER YACHT MARIAN.

The latest addition to the already extensive yachting fleet of San Francisco Bay was launched Saturday, March 20, from the shipyards of Stone & Van Bergen at Harbor View. The yacht was built for A. L. Meyer, a capitalist of San Francisco and member of the Golden Gate Yacht Club.



The vessel is 70 feet 6 inches long, 13 feet 6 inches beam, draws 9 feet 6 inches of water and 14 feet 6 inches with the centerboard down. Sawed cedar frames, 2-inch planking and 3-inch ceiling. The cabin is finished in mahogany and poplar. Three staterooms, a large galley, refrigerator box, two toilets and a complete Presto Lite plant for lighting purposes are among the extensive cabin equipments.

Deck arrangements of the vessel are complete in every detail and no expense has been spared by Mr. Meyer to make his vessel not only the finest looking vessel of her class on the bay, but the most commodious.

The vessel was christened the Marian by Miss Ethel Stone, and immediately following the launching a trip was taken on the bay to test the vessel's qualities. The vessel proved satisfactory in every particular.

C. F. Morel is having a 17-foot by 5 feet 6-inch pleasure boat built, to be equipped with a 3-h. p. eastern Buffalo engine.

J. F. Hanify's handsome yacht Martha is having a new set of cedar spar stepped.

The fast yacht Presto, flagship of the Corinthian Yacht Club, is on the ways at the yard, to be placed in readiness for the coming season. New decks will be put on the vessel before she is again placed in commission.

The sloop Freda has been purchased by Joe Tracy, the veteran Corinthian yachtsman, and is on Klarmans' ways in Tiburon, undergoing an extensive overhauling.

Commodore Berry's sloop Nixie, and Captain Chas. Miller's Yankee are back at their berths of the Corinthian Club, after having been in winter quarters up river since the end of last season.

Mysterious Pete Swanson is building a 60-foot pleasure launch for Honolulu parties. There has been some speculation as to who the prospective owners are, but Pete is keeping their identity a dark secret.

It has been reported that Andrew Thorne has his yawl Seven Bells up for sale, and intends to give up the yachting game.

Preparations are being made for the coming Corinthian opening, the latter part of April, and as this will probably be the last opening held at the old clubhouse, which is to be torn down preparatory to the erection of a new \$20,000 building, a particularly large attendance is expected.

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COLUMBIA RIVER PILOTAGE AND TOWAGE RATES

BAR PILOTAGE

For piloting an inward or outward bound vessel to or from Astoria over the bar, or from within the bar to the open sea, all vessels shall pay \$5 per foot draft, and 2 cents per ton for each and every ton registered measurement.

The pilot who first speaks a vessel, or duly offers his services thereto as pilot, on or without the bar pilot grounds, is entitled to pilot such vessel over the same; but the master may decline to accept, and may navigate his vessel over said pilot grounds without a pilot; but, nevertheless, he shall, if inward bound, pay full pilotage, and if outward bound, one-half of above rates.

RIVER PILOTAGE

For piloting a vessel upon the river pilot ground between Astoria and Portland, whether ascending or descending, all vessels shall pay \$2 per foot draft and 2 cents per ton for each and every ton registered measurement; and the Board is authorized to prescribe a proportionate compensation for pilot service between other points on said ground, or from one part of a dock to another part of the same dock, the charge therefor shall be a sum not exceeding \$7.50; and the pilot shall, on being thereunto requested by the master of the vessel, be required to do such work, and for such compensation. Provided, however, it shall be optional with the master or person in

NOTE.—The above rates apply only to vessels arriving light or in ballast. No charge is then made for hawser. If vessel loads at two points outside of Portland harbor, an additional charge of 10 cents per 1,000 feet is made.

Columbia River Towage Tariff From the Pacific Ocean or Astoria to Portland and Return for Vessels Other Than Lumber Carriers.

Vessels 500 to 700 tons net register	\$500.00
Over 700 to 1000 tons net register	550.00
Over 1000 to 1200 tons net register	600.00
Over 1200 to 1500 tons net register	650.00
Over 1500 to 1800 tons net register	700.00
Over 1800 to 2000 tons net register	750.00
Over 2000 to 2500 tons net register	800.00
Over 2500 to 3000 tons net register	850.00
Hawser charge	\$15.00 each way

INSTRUCTIONS AND RATES COVERING HARBOR MOVES AND LIGHTERAGE.

Moves: Vessels will be moved within the harbor limits of Astoria or Portland at a charge of \$20 for each steamer used for each move.

Lighterage: The channel of the Columbia and Willamette Rivers having been deepened to admit vessels drawing 25 feet, in the event of its becoming necessary from any cause to lighter vessels bound outward from Portland, carrying cargoes of grain and its products foreign, such lighterage will be handled free of charge by the tow-boat company.

Any necessary lighterage of inbound vessels destined to Portland will be handled at a charge not exceeding \$1.00 per ton, weight or measurement at option of tow-boat.

From the Pacific Ocean—

To Portland, Ore., or Vancouver, Wash., and return to Pacific Ocean. 50 cents per 1,000 feet.

To Astoria and return to Pacific Ocean, 25 cents per 1,000 feet.

Towage rates at Grays Harbor are fixed on a basis of 40 cents per thousand feet of lumber carried outward.

Moving vessels within the harbor limits is done by small steamers, without regard to a fixed tariff. Usual charges for this service run from \$2.50 to \$10.00, according to distance.

Pilotage is not compulsory. If pilot is employed by vessel bound in, rate subject to agreement. Tugs have full charge of vessels in tow, tug-boat masters all being Government licensed pilots.

TONS	BETWEEN CAPE FLATTERY AND										BETWEEN PORT TOWNSEND AND										BETWEEN PORT ANGELES AND									
	Port Angeles	Port Townsend	Hadlock	Port Gamble, Port Ludlow, Roche Harbor	Anacortes	Bellingham, Everett, Port Madison, Seattle, Port Blakely, Shillbide Bay*	Tacoma, Cosman, Lacey, Blaine	Olympia, Mossyville, Vancouver, Nainaim, Stevens-ton	Hadlock	Diamond Point	Dungeness	Port Gamble, Port Ludlow	Anacortes	Bellingham, Everett, Roche Harbor, Seattle, P. Blakely, Shillbide Bay*	Tacoma, Blaine	Olympia, Cosman, Lacey, Blaine	Mossyville, Vancouver, Nainaim, Stevens-ton	Port Townsend	Hadlock	Port Gamble, Port Ludlow	Anacortes	Bellingham, Everett, Port Madison, Seattle, Port Blakely, Shillbide Bay*	Roche Harbor	Tacoma, Cosman, Lacey, Blaine	Olympia, Mossyville, Vancouver, Nainaim, Stevens-ton					
150 to 250	\$ 40	\$ 65	\$ 75	\$ 85	\$ 90	\$ 95	\$105	\$135	\$10	\$10	\$10	\$25	\$ 28	\$ 30	\$ 40	\$ 70	\$ 85	\$ 25	\$ 35	\$ 50	\$ 53	\$ 55	\$ 45	\$ 65	\$ 95					
251 to 350	45	75	90	85	110	115	125	155	15	15	15	30	35	40	50	80	100	30	45	60	65	70	60	80	110					
351 to 450	50	85	102	120	125	135	145	175	17	20	20	35	40	50	60	90	115	35	52	70	75	75	70	95	125					
451 to 500	53	90	109	125	137	145	155	185	19	23	23	38	47	55	65	95	123	38	57	75	83	90	75	103	133					
501 to 550	55	95	115	135	145	155	165	195	20	25	25	40	50	60	70	100	130	40	60	80	90	100	80	110	140					
551 to 600	58	100	122	143	155	165	175	205	22	28	28	43	55	65	75	105	138	43	65	85	97	108	85	118	148					
601 to 650	60	105	128	150	163	175	185	215	23	30	30	45	60	70	80	110	145	45	68	90	105	115	90	125	155					
651 to 700	63	110	134	158	171	185	195	225	24	33	33	48	62	75	85	115	153	48	72	95	110	123	95	133	163					
701 to 750	65	115	140	165	180	195	205	235	25	35	35	50	65	80	90	120	160	50	75	100	115	130	100	140	170					
751 to 850	100	160	188	215	223	230	245	260	28	40	50	55	73	90	100	130	168	60	88	115	128	140	115	155	185					
851 to 1000	125	175	200	225	238	250	275	300	30	50	60	60	80	100	110	135	175	75	105	135	143	150	135	175	200					
1001 to 1200	150	200	225	250	263	275	300	325	35	60	70	70	90	110	125	150	200	100	125	150	163	175	150	200	225					
1201 to 1500	175	225	250	275	288	300	325	350	40	70	80	80	103	125	150	175	225	125	145	175	188	200	175	225	250					

DOCKING—150 to 250 tons, \$5.00; 251 to 350, \$7.50; 351 to 450, \$10.00; 451 to 550, \$12.50; 551 to 650, \$15.00; 651 to 750, \$17.50; 751 to 850, \$20.00; 851 to 1000, \$25.00.

Towage to or from Fraser River points above Steveston subject to special rates. *Towage from Shilshole Bay to Inner Harbor, Ballard, and Inner Harbor, Ballard, to Shilshole Bay, subject to special rates.

HAWSER CHARGE—Vessels 500 tons and under, \$5.00 each way; Hawsers Charge vessels over 500 tons, \$10.00 each way.

Rate from Vancouver to Sound plus above Port Townsend, on vessels of 10000 tons and over, same as sea rate to Sound port. Vessels towing from sea to Tacoma or Seattle and calling at Port Townsend or Port Angeles for orders will be given a direct rate. Captains to wire agent of tugs 48 hours' notice of when tug is required.

Whistle Signals.—1 Whistle, set fore and aft sails. 2 Whistles, set square sails. 1 Long and 2 Short Whistles, haul in port braces. 1 Long and 2 Short Whistles, haul in starboard braces. 4 Whistles, take in furl sails. 2 Short and 1 Long Whistle, get anchor ready. 3 Whistles, let go hawser.

Towing in Foggy Weather.—1 Whistle, port helm. 2 Whistles, starboard helm. 1 Long and 2 Short Whistles, fog signals.

Display signals when passing Tatoosh if you wish to be reported. Flash a light when you let go hawser at night.

PUGET SOUND TOWAGE RATES—VESSELS OF 500 TONS OR OVER

TONNAGE		VESSELS FROM		TO OR FROM CAPE FLATTERY AND THE FOLLOWING PLACES							TO OR FROM PORT TOWNSEND AND THE FOLLOWING PLACES							TO OR FROM PORT ANGELES, ROYAL ROADS AND FOLLOWING PLACES.						
				Royal Roads, Port Angeles	Discovery, Townsend Point	Hadlock	Gamble, Ludlow	Everett, Madison, Ladysmith, Chemainus, Seattle, Cowichan, Blakely, Bellingham	Tacoma, Utsalady, Nanaimo, Vancouver, Moodyville, Steveston	Comox, B. C.	Hadlock	Diamond Point	Gamble, Ludlow	Seattle, Madison, Blakely, Bellingham, Everett	Tacoma, Utsalady, Add \$25 to Cowichan, Ladysmith, Chemainus	Nanaimo, Vancouver, Moodyville, Steveston, Add \$25 to Comox	Townsend, Diamond Point	Hadlock	Gamble, Ludlow, Chemainus, Ladysmith, Cowichan	Everett, Seattle, Blakely, Madison, Bellingham	Tacoma, Utsalady, Nanaimo, Vancouver, Moodyville, Steveston	Comox, B. C.		
851 to 1000 tons.....		\$125	\$175	\$200	\$225	\$250	\$275	\$300	\$ 30	\$ 50	\$ 60	\$100	\$110	\$175	\$ 75	\$105	\$135	\$150	\$175	\$200				
1001 to 1200 tons.....		150	200	225	250	275	300	325	35	60	70	110	125	200	100	125	150	175	200	225				
1201 to 1500 tons.....		175	225	250	275	300	325	350	40	70	75	125	150	225	125	150	175	200	225	250				
1501 to 1800 tons.....		200	250	275	300	325	350	375	45	80	100	150	175	250	150	175	200	225	250	275				
1801 to 2000 tons.....		225	275	300	325	350	375	400	50	90	125	175	200	275	175	200	225	250	275	300				
2001 to 2500 tons.....		250	300	325	350	375	400	425	55	100	150	200	225	300	200	225	250	275	300	325				
2501 to 2750 tons.....		275	325	350	375	400	425	450	60	115	175	225	250	325	225	250	275	300	325	350				
2751 to 3000 tons.....		300	350	375	400	425	450	475	65	130	200	250	275	350	250	275	300	325	350	375				
3001 to 3500 tons.....		325	375	400	425	450	475	500	70	150	235	275	300	375	275	300	325	350	375	400				

Hawser charge, \$10.00 each way.

Towage to or from Fraser River points above Steveston subject to special rates.

Rate from Vancouver to Sound ports above Port Townsend, same as sea rate to Sound port.

Docking vessels, \$25. Vessels towing from sea to Tacoma or Seattle and calling at Port Townsend or Port Angeles for orders will be given a direct rate. Captains to wire agent of tugs 48 hours' notice of when tug is required.

Whistle Signals.—1 Whistle, set fore and aft sails. 2 Whistles, set square sails. 1 Long and 1 Short Whistle, haul in port braces. 1 Long and 2 Short Whistles, haul in starboard braces. 4 Whistles, take in and furl sails. 2 Short and 1 Long Whistle, get anchor ready.

3 Whistles, let go hawser.

Towing in Foggy Weather.—1 Whistle, port helm. 2 Whistles, star-board helm. 1 Long and 2 Short Whistles, fog signals.

Display signals when passing Cape Flattery if you wish to be reported. Flash a light when you let go hawser at night.

HONOLULU PILOTAGE AND TOWAGE RATES

Pilotage is not compulsory, but if foreign vessels and vessels under American register do not employ a pilot they pay one-half of the pilotage. American vessels under a coasting license are entirely free from this charge if they do not employ a pilot.

The pilot fees are based on the following section of the Hawaiian Civil Code:

Section 1, Chapter 32, Laws of 1884. The compensation of the pilots at the port of Honolulu shall be as follows: For all mail steamers of one thousand tons register and upwards, fifty dollars in and same out; for all transient steamers of one thousand tons and upwards, seventy-five dollars in and same out; for all vessels of war, two dollars per foot on draught of water in and out; for all sailing vessels under two hundred tons register, one dollar and a half per foot in and out; all other vessels and steamers, five cents per ton in and same out; for anchoring vessels outside, twenty dollars; if brought into harbor this charge shall be reduced to ten dollars; for any detention on board a vessel for more than twenty-four hours the compensation shall be seven dollars per day.

Towboat service to sailing vessels is based on the following scale:

From sea into the harbor, or to sea—

Vessels under 200 tons.....	\$30.00
Vessels between 200 and 300 tons.....	35.00
Vessels between 300 and 500 tons.....	40.00
Vessels between 500 and 800 tons.....	45.00
Vessels between 800 and 1000 tons.....	50.00
Vessels between 1000 and 1200 tons.....	60.00
Vessels between 1200 and 1400 tons.....	75.00

Over and above 1,400 tons, five cents per ton registered tonnage in addition, towing outside pilot limits as per agreement.

Moves in the harbor—

Up to 1000 tons.....	\$10.00
1000 to 1400 tons.....	15.00
1400 to 2000 tons.....	20.00
2000 to 3000 tons.....	25.00

SAN FRANCISCO PILOTAGE AND TOWAGE RATES

PILOTAGE

All vessels under 500 tons, \$3.00 per foot draught; all vessels over 500 tons, \$3.00 per foot draught, and 3 cents per ton for each and every ton registered measurement; and every vessel spoken, inward or outward bound, except as hereinafter provided, shall pay the said rates. In all cases where inward bound vessels are not spoken until inside of the bar, the rates of pilotage herein provided shall be reduced 50 per cent. Vessels engaged in the fishing trades shall be exempt from all pilotage except where a pilot is actually employed, as shall all vessels sailing under an enrollment, and licensed and engaged in the coasting trade between the port of San Francisco and any other port of the United States. All foreign vessels and all vessels from a foreign port, or bound thereto, and all vessels

sailing under a register between the port of San Francisco and any other port of the United States shall be liable for pilotage, as above provided.

TOWAGE

The cost of towage from sea to anchorage varies with distance and conditions of weather, and ranges from \$100 to \$250.

For moving a vessel of 2,000 tons net register in the harbor the charges are approximately:

Docking, City Front.....	\$ 30.00
Stream to Port-Costa, or Port Costa to Stream.....	130.00
Stream to Sea.....	110.00

Fore-and-aft rigged vessels pay, according to size, from \$7.50 to \$15 for docking, and from \$20 to \$50 for towing to sea.

This page will be reserved exclusively for all official notices and information of importance

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0h—midnight 12h—noon less than 12—Forenoon, greater than 12—after-
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N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

NOTICE TO MARINERS.

The order of the light at Carmanah, Vancouver Island, has been changed pending repairs and alterations to the lighthouse tower. The present light will be discontinued and a quick-flashing third order light showing one flash every three seconds will be temporarily installed.

Captain Holmes of the steamer Rosecrans reports by wireless to the Branch Hydrographic Office that on March 22, 1909, in Lat. N. 33 deg. 48 sec., Long. W. 123 deg. 0 sec. he sighted a spar standing upright about 12 feet out of water painted red.

Captain Smith of the steamer Daisy reports to the Branch Hydrographic Office that at 4 a. m., March 20, he saw a black can buoy in a position three miles southeast of the Columbia River lightship, supposed to be from north spit of Columbia River bar, as that one could not be seen.

J. C. BURNETT,
Lieutenant U. S. N., in charge.

MARINE INTELLIGENCE.

Application for civil service examinations will be received at this office during the next thirty days for filling the position of laborer at Trinidad Head light station, California, with pay at the rate of \$480 per annum, and find yourself.

Applicants must be citizens of the United States, and over eighteen years of age.

Application blanks and full information can be obtained by applying to this office or to the keeper of Trinidad Head light station, Trinidad, California.

R. F. LOPEZ,
Commander, U. S. N.,

Chairman Local Civil Service Board for the Light-House Service (Inspector's Department), 813 Mutual Savings Bank Bldg, 704 Market St., San Francisco.

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WANTED—To charter, a boat of the river type, equipped for Sunday excursions, to carry about 400 passengers. Address manager Pacific Merchant Marine.

WANTED—A thirty-foot seagoing gasoline flush-deck launch, equipped with an eight or ten horsepower engine of approved make. Inquire office of Pacific Merchant Marine.

FOR SALE—Thirty town lots at Alviso; established head of navigation on San Francisco Bay. Inquire office of Pacific Merchant Marine.

LIFE-SAVING STATIONS ON THE PACIFIC COAST OF THE UNITED STATES

Name.	State.	Locality.	Lat., North.			Long., West.		
			Deg.	Min.	Sec.	Deg.	Min.	Sec.
Waadah Island.....	Washington.....	.....	48	22	40	124	35	30
Gray's Harbor.....	".....	Just south of Grays Harbor light.....	46	53	15	124	07	15
Willapa Harbor.....	".....	Near lighthouse boat landing.....	46	43	00	124	03	00
Ilwaco Beach.....	".....	Thirteen miles north of Cape Disappointment.....	46	27	50	124	03	25
Cape Disappointment.....	".....	Bakers Bay, one-half mile northeast of light.....	46	16	40	124	03	00
Point Adams.....	Oregon.....	Three-fourths miles southeast of Fort Stevens.....	46	12	00	123	57	00
Tillamook Bay.....	".....	.....	45	33	30	123	57	00
Yaquina Bay.....	".....	About one mile south of harbor entrance.....	44	35	30	124	03	54
Umpqua River.....	".....	Near entrance of river, north side.....	43	42	00	124	10	30
Coos Bay.....	".....	Coos Bay, north side.....	43	22	50	124	18	00
Coquille River.....	".....	In town of Bandon.....	43	07	00	124	25	00
Humboldt Bay.....	California.....	Near the old abandoned lighthouse tower.....	40	46	00	124	13	00
Arena Cove.....	".....	Four miles south of Point Arena light.....	38	54	50	123	42	30
Point Reyes.....	".....	Three and one-half miles north of light.....	38	02	20	122	59	30
Point Bonita.....	".....	Near Point Bonita light.....	.....	.....	.....	.....	.....	.....
Fort Point.....	".....	Three-fourths mile east of light on Fort Winfield Scott.....	37	48	10	122	27	50
Golden Gate.....	".....	On beach in Golden Gate Park, San Francisco, three-fourths mile south of Point Lobos.....	37	46	10	122	30	30
Southside.....	".....	Three and three-eighths miles south of Golden Gate Life-Saving Station.....	37	43	18	122	30	18
Nome.....	Alaska.....	At Nome.....	64	30	00	165	23	00

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1. A gun fired at intervals of about a minute.
2. The International Code signal of distress indicated by N. C.
3. The distant signal, consisting of a square flag, having either above or below it a ball or anything resembling a ball.
4. Rockets or shells as prescribed below for use at night.
5. A continuous sounding with a steam whistle or any fog-signal apparatus.

At night—

1. A gun fired at intervals of about a minute.
2. Flames on the vessel (as from a burning tar barrel, oil barrel, etc.).
3. Rockets or shells bursting in the air with a loud report and throwing stars of any color or description, fired one at a time at short intervals.
4. A continuous sounding with a steam whistle or any fog-signal apparatus.

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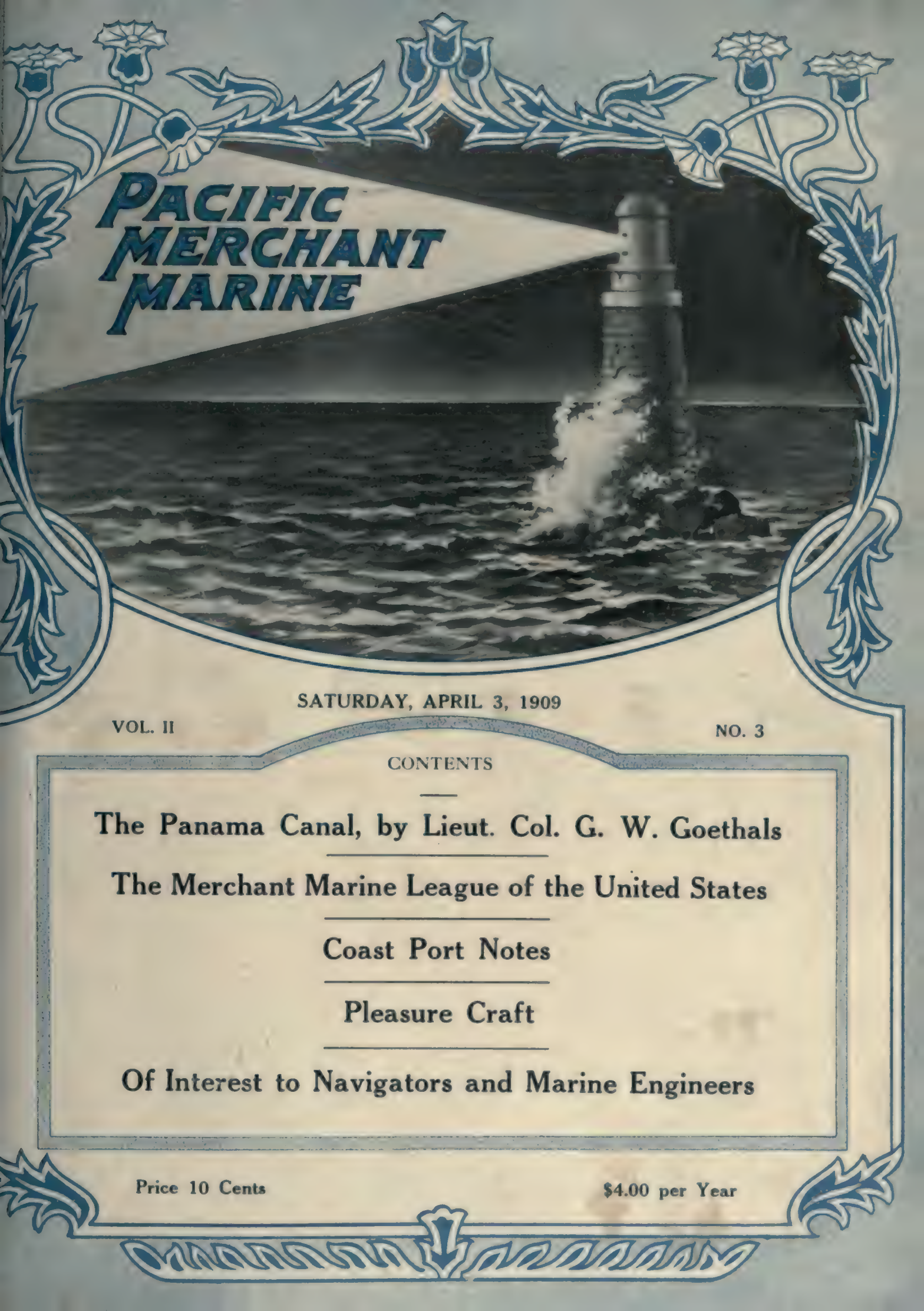
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PACIFIC MERCHANT MARINE

SATURDAY, APRIL 3, 1909

VOL. II

NO. 3

CONTENTS

The Panama Canal, by Lieut. Col. G. W. Goethals

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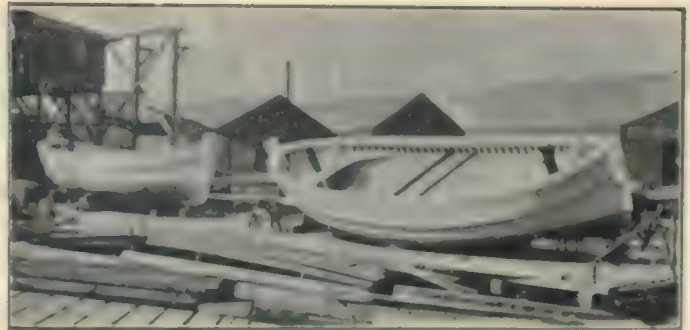
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Teacher, Philippine Service.

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Volume II

SATURDAY, APRIL 3, 1909

Number 3

THE ISTHMIAN CANAL.

By LIEUT. COL. GEO. W. GOETHALS, U. S. Army,
Chairman and Chief Engr., Isthmian Canal Commission.

The majority of the Board of Consulting Engineers estimated that from ten to thirteen years would be required for the completion of the sea-level canal. The Isthmian Canal Commission and the then Chief Engineer fixed the time from eighteen to twenty years. It will take at least six years to complete the dam at Gamboa, and until the control of the Chagres River is assured, little if any excavation can be carried lower than 40 to 50 feet above sea level, so that in the absence of anything more definite the time needed to construct the Gamboa dam is assumed as the additional period needed for completing the sea-level type.

Much criticism has resulted because of the excess of the present estimates over those originally proposed, arising largely from a failure to analyze the two estimates, or to appreciate fully the actual conditions.

The estimates prepared and accompanying the report of the consulting engineers were based on data less complete than are available at present. The unit costs in the report of 1906 are identical with those in the report of 1901, and since 1906 there has been an increase in the wage scale and in the cost of material. On the isthmus wages exceed those in the United States from 40 to 80 per cent for the same class of labor. The original estimates were based on a ten-hour day, but Congress imposed the eight-hour day. Subsequent surveys and the various changes already noted have increased the quantity of work by 50 per cent, whereas the unit costs have increased only 20 per cent—not such a bad showing. In addition, municipal improvements in Panama and Colon, advances to the Panama Railroad and moneys received and deposited to the credit of miscellaneous receipts aggregate \$15,000,000, which amount will eventually and has in part already been returned to the Treasury. Finally, no such system of housing and caring for employees was ever contemplated as has been introduced and installed, materially increasing the overhead charges and administration.

Much stress has been laid upon the fact that recent improvements in machinery have so modified conditions that the excavation can be done more economically by special devices in conjunction with dredging than is possible with the methods now adopted. The machines referred to are for shattering rock under water, and though it is claimed that such devices have given satisfactory results in connection with the Manchester Ship Canal, it is known that similar appliances have failed in certain localities in the United States where they were tried. The variations in the character of the rock on the Isthmus from soft argillaceous sandstone to hard trap are such as to make the use of such devices very problematical. Experience generally has shown that more money can be wasted on sub-aqueous rock excavation than in the removal of such material in the dry. Experiments are now being made on the Isthmus with one of these rock-crushing devices, but thus far the results are not promising.

Much has been written recently concerning the probable effect of earthquakes. The last earthquake of any importance occurred in the seventeenth century, and existing ruins in Panama demonstrate clearly that no shock of any violence could have occurred during the eighteenth and nineteenth centuries. Should an earthquake visit the Isthmus the chances are that the effect upon the Gatun dam would be less disastrous than upon the Gamboa dam. The solid concrete construction of the locks, strengthened by reinforcements, will be as proof against any earth shocks as any structure which man builds anywhere, and the sea-level canal has as much to fear as the lock canal.

The vulnerability of the lock canal in time of war is another argument advanced in favor of the sea-level type, but has little weight, as the sea-level type is equally vulnerable from attacks by land or air in its Gamboa dam as are tidal locks and the various devices for controlling the streams along the route.

The idea of the sea-level canal appeals to the popular mind, which pictures an open ditch offering free and unobstructed navigation from sea to sea, but no such substitute is offered for the present lock canal. As between the sea-level canal and the lock canal, the latter can be constructed in less time, at less cost, will give easier and safer navigation, and in addition secure such a control of the Chagres River as to make a friend and aid of what remains an enemy and menace in the sea-level type.

In this connection attention is invited to the statement made by Mr. Taft, when Secretary of War, in his letter transmitting the reports of the Board of Consulting Engineers:

"We may well concede that if we could have a sea-level canal with a prism of 300 to 400 feet wide, with the curves that must now exist reduced, it would be preferable to the plan of the minority, but the time and cost of constructing such a canal are in effect prohibitive.

We are justly proud of the organization for the prosecution of the work. The force originally organized by Mr. John F. Stevens for the attack upon the continental divide has been modified and enlarged as the necessities of the situation required, until at the present time it approaches the perfection of a huge machine, and all are working together to a common end. The manner in which the work is being done and the spirit of enthusiasm that is manifested by all forcibly strikes everyone who visits the works.

The main object of our being there is the construction of the canal; everything else is subordinate to it, and the work of every department is directed to the accomplishment of that object.

In addition to the department of construction and engineering, there are the departments of sanitation and civil administration, the quartermaster's and subsistence departments, the purchasing department organized in the United States, the legal department, and the departments of examination of accounts and disbursements. Subordinated to, but acting in conjunction with, the commission is the Panama Railroad.

Too much credit can not be given to the department of sanitation, which, in conjunction with the division of municipal engineering, has wrought such a change in the conditions as they existed in 1904 as to make the construction of the canal possible. This department is subdivided into the health department, which has charge of the hospitals, supervision of health matters in Panama and Colon, and of the quarantine, and into the sanitary inspection department, which looks after the destruction of the mosquito by various methods, by grass and brush cutting, the draining of various swampy areas, and the oiling of unavoidable pools of stagnant streams.

According to the statistics of the health department, based on the death rate, the Canal Zone is one of the healthiest communities in the world, but in this connection it must be remembered that our population consists of men and women in the prime of life, with few if any of the aged, and that a number of the sick are returned to the United States before death overtakes them.

To the sanitary department are also assigned 11 chaplains employed by the commission to attend the sick, as well as to look after the spiritual welfare of the employees. At most of the villages there is a combined church and lodge house so constructed that the lower floor is used for divine service, while the upper part provides places for meetings of the various lodges. The assignment of time to ministers and to lodges is made by the quartermaster's department.

The department of civil administration exercises supervision over the courts, which consist of three circuit and five district

judges; the three former, sitting in bank, constitute the supreme court. The district courts take cognizance of all cases where the fine does not exceed \$100 or imprisonment does not exceed thirty days. Jury trials are restricted to crimes involving the death penalty or life imprisonment—in short, summary justice rules, and so long as the zone is nothing more nor less than a construction camp this form of law or justice will continue to be most satisfactory.

The department of civil administration has charge also of the police force, the post-offices, collection of customs and taxes, the issue of licenses, and the public-school system. The schools are improved to such an extent that the children of the employees have very nearly the same advantages as in the United States up to and including the high-school courses.

The quartermaster's department has charge of the recruiting of labor, the care, repair, and maintenance of quarters, the collection and disposal of garbage and refuse, the issue of furniture, and the delivery of distilled water and commissary supplies to the houses of employees, and is to have charge of the construction of all new buildings. Operating in conjunction with the

received from sales could be reapplied, whereas if operated by the commission the money would have reverted to the Treasury, necessitating reappropriation before the proceeds of sale could be utilized. They are, however, under the management of the subsistence officer of the commission, who has charge of the various hotels, kitchens, and messes of the commission.

There are 16 hotels from Cristobal to Panama, which serve meals to the American, or gold, employees at 30 cents per meal. There are 24 messes where meals to European laborers are served, the cost per day to such laborers being 40 cents; and there are 24 kitchens, or messes, for meals supplied to the silver laborers, or West Indians, the cost to the laborer being 30 cents per day for three meals. Subsistence is furnished without profit to the commission, though every effort is made to have the institutions self-supporting. The commissaries and manufacturing plants are operated at a profit so as to reimburse the Panama Railroad Company for its outlay in six years from January 1, 1909, at 4 per cent interest.

The subsistence department also has charge of the Hotel Tivoli, which is a large hotel located at Ancón, for the entertain-



IN BAS OBISPO CUT

The Americans have widened this point about seventy-five feet and lowered it about thirty-five.

purchasing department in the States, the quartermaster's department secures all supplies needed for construction and other purposes and makes purchases of materials on the Isthmus when required.

The common-labor force of the commission and the Panama Railroad aggregates in the neighborhood of 25,000 men, and consists of about 6,000 Spaniards, with a few Italians, the remainder being from the West Indies. The Spaniard is the best laborer, as he possesses more strength and endurance. Under some conditions this is not true, the foreigner strenuously objecting to doing work that requires him to stand in water.

All the skilled labor, the clerical force, and the higher officials are Americans and are recruited through the Washington office.

This department also has charge of all the property records, receives semi-annual returns of property from all those to whom property has been issued, and checks the returns and inventories of the storehouses, made at certain times, with the records compiled from original invoices.

The subsistence department has charge of the commissaries and the manufacturing plants which consist of an ice and cold-storage establishment, a bread, pie, and cake bakery, a coffee-roasting outfit, and a laundry. These belong to the Panama Railroad Company, as, at the time they were established, money

of the commission's employees at a comparatively low rate, and of transient guests at rates usually charged at first-class hotels.

All moneys are handled by the disbursing officer, who pays accounts that have been previously passed upon by the examiner of accounts. This last-named official makes the administrative examination required by law prior to the final audit of the accounts by the Auditor for the War Department. The pay rolls are prepared from time books kept by foremen, timekeepers, or field clerks, subsequently checked by the examiner of accounts, who maintains a force of time inspectors. The time inspectors visit each gang, generally daily, at unknown times to the foreman, timekeeper, or field clerk, and check the time books with the gangs of workmen; the inspectors report to the examiner of accounts the results of their inspection not only in connection with timekeeping, but all violations of the regulations of the commission that may come under their observation.

Payments of pay rolls are made in cash, beginning on the 12th of each month and consuming four days for the entire force on the Isthmus. All American employees and European laborers are paid in gold; all on the so-called "silver roll" are paid in Panamanian silver.

The Department of construction and engineering is under the direct charge of the Chief Engineer. He is assisted by the Assistant Chief Engineer, who considers and reports upon all engineering questions submitted for final action. The Assistant Chief Engineer has charge of the designs of the locks, dams, and spillways, and supervision of these particular parts of the work. There is attached to the Chief Engineer an assistant to the chief engineer, who looks after mechanical forces on the Isthmus, and has supervision over the machine shops, the cost-keeping branch of the work, the apportionment of appropriations, and the preparation of the estimates. There is also an assistant engineer, who has charge of all general surveys, meteorological observations, and river hydraulics.

The zone is divided territorially into three divisions, each in charge of a division engineer, the first extending from deep water in the Caribbean south to include the Gatun locks and dams, known as the "Atlantic division." The second, or "Central Division," extends from Gatun to Pedro Miguel, and includes the excavation through the continental divide. The third, or "Pacific Division," extends from Pedro Miguel, including the locks and dams of that locality, to deep water in the Pacific.

The general plans emanate from the office of the Chief Engineer and the details are left to division engineers, subject to the approval of the Chief Engineer. The whole idea of the organization in the Department of Construction and Engineering, and in fact of all the work, is to place and fix responsibility, leaving to each subordinate the carrying out of the particular part of the work intrusted to his charge.

Each division engineer has charge not only of the work involved in the construction of the canal, but all municipal engineering, including water supply, building and maintaining roads, and the establishment and maintenance of sewer systems. With the force under his charge the division engineer executes such sanitary draining as may be prescribed by the chief sanitary officer, so that all construction work, excepting the construction of buildings, concerning the location of which the division engineer is consulted, however, is directly in the hands of the division engineer.

Attached to the office of the chairman is a general Y. M. C. A. secretary, who has supervision of the commission's clubhouses, which are operated and maintained under the auspices of the Y. M. C. A. Four of these are now constructed and in operation, and four more are to be built from funds recently made available by Congress. They have done much toward securing a greater permanency to the force, in giving healthful amusement, and to a better contentment on the part of the employees.

I have endeavored to show that a channel of sufficient width, in which the waters of the many streams, especially the Chagres, will not be a menace, is one most desired for an Isthmian canal. The sea-level canal proposed by a majority of the Board of Consulting Engineers is not of sufficient width, nor is the proposed solution for the impounding and diversion of the Chagres and other streams based upon sufficient investigations to insure its success. The "ideal" sea-level canal, the Straits of Panama, recently proposed, is not based upon any investigations of the work to be done and can not, in view of the approximate estimate of the cost of our own sea-level canal, which is about one-third the size of the "ideal" plan, be given serious consideration. Every criticism against the stability of our locks or dams can be attributed to either an argument in favor of one's own plans or to absolute ignorance of the exhaustive data concerning their safety now in existence. The several other plans of lock-type canal have nothing in their favor that the plan now adopted does not possess to a greater degree.

I have endeavored also to show that the organization on the Isthmus is compact and complete in every way, performing its duties of construction, sanitation, and government with clocklike precision. I can not do better than quote the message recently sent to the Congress, "that hereafter attack on this type—the lock type—is in reality merely attack upon the policy of building any canal at all," for the adoption of a sea-level canal anywhere approaching the ease of navigation of the lock type will result in the ultimate abandonment of the canal; and I assure you that several years hence, no later than January 1, 1915, even the most ardent sea-level advocates will, in making the voyage through

the canal, admit that the ability to navigate a battle ship at a high rate of speed through the lake and wide channel from Gatun to Pedro Miguel far outweighs the small inconveniences of the safe lockages up to and down from the summit level.

March 16, 1909.

AMERICAN SHIPPING.

By ALEXANDER R. SMITH.

For the past quarter of a century the problem of reviving American shipping in the foreign trade has been continually before the people. Its non-solution is a reproach to American statesmanship. During that time four distinctly different methods have been proposed, one of which has for the past sixteen years been in restricted operation. Limited as it is to a certain type of a certain class—a mere fraction of our general shipping—it has served to arrest the decline.

Provisions and Accomplishments of the Frye Bill of 1890.

From 1886 to 1891, a propaganda was carried on in behalf of a dual system of subsidies and bounties, as embraced in the Frye bill of that time. It was proposed to pay to the swift 20-knot steamship in the transatlantic trade, of 8,000 gross tons or over, \$6.00 per mile for every mile sailed on the outward voyage, \$3.00 to 16-knot steamships of 5,000 tons, and lesser sums to smaller and slower steamships, carrying the mails on regular lines. To cargo vessels, sail and steam, it was proposed to pay 3 cents per ton per hundred miles sailed on a foreign voyage, a rate that France was then paying to her ships. Had that bill passed as it was drawn by Senator Frye, a large proportion of our entire foreign commerce would today be carried under the American flag. Instead of 900,000 tons of shipping in our foreign trade, as now, we might have 4,000,000 tons, we would rank second to Great Britain as a maritime power, and be a close and gaining second at that. It passed the Senate in 1890 as originally drawn. In March, 1891, the House struck out all provision for cargo vessels, the mail subsidy was cut down one-third, and in that emasculated form it was enacted, since which time it has remained undisturbed and unobjected to upon our national statutes. Nevertheless, our steam tonnage in the foreign trade, which had not increased at all during the preceding twenty-four years has, during the past fifteen years, trebled. Our still unprotected sailing tonnage is not one-half what it then was. Weak and feeble as was the subsidy provision for mail lines, five such lines have been sustained under it, and are now operating in our foreign trade.

The One Accomplishment of the Fifty-Second Congress.

Profuse promises were made that efforts would at once be vigorously pushed to secure adequate protection for our cargo carriers. All that was done in the succeeding Congress was the enactment of the Coker bill for the admission to American registry of the British steamships City of New York and City of Paris, owned by the American International Navigation Company, on condition that equal tonnage to that so admitted should be built by their owners in the United States. This led to the construction of the St. Louis and the St. Paul, which make up the line of four American transatlantic steamships—the only American swift liners in that trade.

A Meager and Pitiful Share.

Sixty per cent of our entire foreign commerce is with Europe, of which less than five per cent is carried in American vessels. This would be but a fraction of

one per cent, but for that carried by the few American steamships owned by the one American company engaged in that vast trade.

Abortive Democratic Effort to Pass a "Free Ship" Bill.

In the fifty-third Congress, March 4, 1893, to March 4, 1895, both branches of that body were under Democratic control, with a Democratic executive. Representative Fithian, of Illinois, was the chairman of the Committee on Merchant Marine and Fisheries, which committee promptly reported out a bill favoring the free admission to American registry of foreign-built vessels owned by American citizens. This bill hung upon the House calendar, with the President, the Secretary of the Treasury, and the Commissioner of Navigation frequently asking Speaker Crisp, of Georgia, to consent to a day for its consideration. Such consent being unobtainable, the Congress ended with the bill unacted upon. In the Senate Commerce Committee it was found impossible to secure a favorable report on a similar bill. Thus no action was taken during the only period in the last forty-six years that the control of the legislative and executive branches of the government was vested in the Democrats.

Incongruity of Free Ship Advocacy.

A free ship bill is essentially a free trade bill, limited in its application, of course, to foreign-built ships. Manifestly, such a measure is contrary to the protective policy that has been in full force in the United States for the past forty-six years, and diametrically opposed to the principles of the Republican party. It is strongly advocated by the free trade element in the United States, and is offered to this country, by leading British newspapers and statesmen, as the only method by which an American merchant marine can be built up in the foreign trade. It involves the purchase of foreign built ships and their registry as American vessels for our foreign carrying, and on the ground, conceded, that such ships may be built more cheaply abroad than in the United States. A vast number of different articles may be purchased abroad more cheaply than they can be made in the United States, but it is contrary to the national policy to permit such goods, if they compete with American-made products, to enter free of any duty. Indeed, an average duty of 45 per cent is collected on foreign articles coming into the United States that compete with home-made products. This is a protective as well as a revenue-producing duty. Obviously, a policy that is regarded as just to all of our land industries that are subject to foreign competition, should be extended, in some form, to our shipping upon the seas, also subject to foreign competition in the carrying of American imports and exports. To suggest that our shipping in the foreign trade may prosper under free trade conditions, with all of our land industries highly protected against foreign competition, enjoying a marvelous growth and unbounded prosperity, is to argue against the protective policy in the face of a success so phenomenal and long-continued as to make such free trade advocacy appear ridiculous. To assert that it is only through free ships that we may build up an American merchant marine, is to disregard the period of over seventy years, preceding our civil war, when, without free ships, with American registry continuously denied to foreign-built American-owned ships, an average of 80 per cent of our entire foreign commerce was carried in American vessels. If free ships are essential now, why were they not essential throughout that period?

The Ultra Foreign Character of a Free Ship Act.

But, it is alleged, "protection has driven our shipping from off the seas." This is a half truth, more deceptive

than an absolute untruth. Protection—that is to say, the lack of protection—has, indeed, driven our shipping, practically speaking, from our foreign carrying trade. Advocates of free ships who are unblinded by prejudice and partisanship will readily admit that the mere admission of foreign-built vessels to American registry will ultimately fail to build up an American merchant marine in the foreign trade. They will, if sincere, admit that we must go much farther; that we must permit aliens to command and officer our ships, and that we must also reduce the food scale now required, by law, on board of American vessels, to the level of that in vogue in foreign countries. The free ship advocacy, when bared of all deception, therefore, involves the purchase of our vessels abroad, the employment of aliens to command, officer and man them, and a statutory food scale conforming to that of other nations, all because of the greater cheapness of foreign-built vessels, foreign masters, officers and men, and foreign food scales. Again, it is to be noted, that each of these several propositions is fundamentally contrary to our national policy, of protecting our people against the competition of foreigners. Who, constituting a body of any considerable proportions in the United States, desire an American merchant marine of which everything but the ownership shall be foreign? Who, in the United States, desires an American merchant marine composed of alien ships and alien men, because such a marine is cheaper than an American-built, American-officered marine would be? If there be such, are they not satisfied to know that probably 1,500,000 tons of foreign ships, built in foreign countries, commanded, officered and manned by foreigners, are now owned by Americans? Does not the fact that an American-owned tonnage whose efficiency is two and possibly three times greater than that under the American flag in the foreign trade satisfy these free trade, free ship advocates? Were the American owners of this foreign shipping desirous of American registry, some excuse might be offered for this free trade, free ship advocacy, but not only are these American owners of foreign-built ships not asking for American registry for that tonnage, but they have, one and all, said that they would not, if permitted by our laws, register such vessels as American.

American Registry a Handicap Instead of a Benefit.

Foreign vessels that are engaged in our foreign trade are given every privilege in our ports that our own are given, save that of registry. We make no discrimination against foreign vessels in our foreign trade. It is impossible to point out, therefore, where the denial of American registry works any hardship to any American. On the contrary, the large American ownership of foreign vessels under foreign flags, proves that the denial of American registry to them involves no hardship. Aye, more, the fact that the privilege of American registry would not be availed of by these owners proves conclusively that they would regard such registry as a handicap rather than a benefit. Why, under such circumstances, should the clamor of impractical theorists for free ships be given further consideration?

Injurious Effects of Free Trade—Beneficial Effects of Protection.

Barring the comparatively small proportion of our foreign-going shipping that is subsidized under the Act of March 3, 1891, our tonnage in the foreign trade is in full free trade competition with foreign shipping. It is but little more than one-third what it was in 1861.

AN APPEAL FOR THE AMERICAN FLAG.

The executive committee of the Merchant Marine League met February 20, 1909, at Cleveland, Ohio, and agreed upon the following appeal to the people of the United States and their Senators and Representatives in Congress:

1st. The Merchant Marine League is a non-partisan organization composed of members in every State of the Union who ardently desire, in the public interest, the up-building of our merchant marine and the restoration of our flag to the seas.

2d. Those composing the Merchant Marine League are not engaged either in shipbuilding or ship operating.

3d. The Merchant Marine League has no representative in Washington, and has not paid or agreed to pay one dollar for services in carrying on its work. The League is depending for success on the merits of its cause and the patriotism of the American people.

The Merchant Marine League sees a vast trade, amounting to hundreds of millions of dollars annually in Central and South America, Australia and the Orient lost to our people through our lack of trade facilities, such as merchant vessels to carry our mails, merchandise and passengers direct to these countries.

We have a magnificent navy whose return from a trip around the world is now being celebrated. Our pride in its achievement, however, is mingled with extreme humiliation because of the knowledge that indispensable auxiliaries for the world-encircling trip of this fleet consisted of foreign vessels which would not be available in case of war.

Therefore, for the benefit of our country—the advantage of its farms and factories, its capital and labor, and for the prosperity of its people and the glory of its flag, we urgently recommend the immediate passage of the Ocean Mail Bill, which has passed the Senate unanimously, is so warmly commended by the President and the members of his Cabinet and the President-elect of the United States and is now pending before the Committee on Post Office and Post Roads of the House of Representatives.

COURT NOTES.

Portland—The owners of the French bark Martha Roux have filed an admiralty suit against the Oregon R. R. & Navigation Co. for \$6120. The tugs Henderson and Oklahoma, belonging to the defendant company, were towing the French bark across the Willamette river, but the current became so strong that the vessel began to drift, whereupon the tugs loosed their tow lines, leaving the Roux at the mercy of the current.

The Metropolitan Redwood Lumber Company's suit, to limit its liability in the collision of the San Pedro with the steamer Columbia was heard in the U. S. District Court by Judge De Haven, and postponed until April 9th.

At the time of the collision 200 lives were lost, the responsibility for which is shared by the San Pedro.

The suit of Henry Withom, formerly mate on the Union Oil Co. barkentine Fullerton, filed against the Union Oil Co. for \$50,000, was decided in favor of the plaintiff by the U. S. Court at Honolulu. Withom receiving \$17,500 and interest.

At the time of the accident the Fullerton was in tow of the steamer Lansing when by a slip of the cable Witt-hof received injuries to his arm which necessitated amputation.

NORTHERN COAST NOTES.

Portland—In all probability the Port of Portland Commission will, instead of building a tug, lease one for service at the mouth of the Columbia river. The tug Daring, now in Grays Harbor, has been selected as a suitable one for the purpose, and Engineers Lockwood and Champion, representing the Port, are to inspect the tug. The Daring can be had for a consideration of \$1,500 a month.

The steamer Argo was compelled to go on the dry dock to have a new propeller fitted. While leaving Tillamook the Argo struck a snag.

That the bulk of the wheat this season will be shipped foreign by tramp steamers is the opinion of exporters. The Pacific fleet will consume great quantities of coal and it is believed that this coal will be brought from the Atlantic coast by tramp steamers, whose owners will go begging for a return cargo. This was the condition of affairs last year when numerous tramps followed up the warships and it had the effect of providing cheap grain tonnage.

A public hearing will be held in the office of Major J. F. McIndoe, April 20, to discuss the proposed extension of the harbor lines from their present terminus near St. John to the mouth of the Willamette river. The owners of waterfront property below St. John are at a loss to know how far out over the river bank they will be permitted to erect a building they desire to construct.

The original plans of the new vessel to be built for the McCormack Co. of San Francisco have been revised considerably. On the original plans the vessel measured 205 feet in length, and 41 feet beam. On the revised plans the length will be 210 feet and a beam of 41 feet 6 inches. This will increase the carrying capacity by 100,000 feet, without adding greatly to the original cost. When completed the vessel will carry 1,250,000 feet of lumber, and will be operated between Oregon and Washington ports, carrying lumber to California. This vessel will be the largest wooden vessel built on this coast.

J. A. Baker, of Ocean Park, Wash., has purchased the wreck of the French ship Alice, which stranded at North Beach a few months ago while en route to Portland from Antwerp with a cargo of cement. The consideration was \$201.25.

All bids submitted for the construction of two tugs for service at the mouth of the Columbia have been rejected at a special meeting by the Port of Portland Commission.

The British barks Galena and Peter Iredale have been purchased by the local representative of the Pacific Hardware & Steel Co. The hulls will be broken up and the material shipped to the Portland Rolling Mills. The barks stranded on Clatsop beach in the fall of 1906.

The river steamboat Pomona struck a rock during a dense fog and now lies partly submerged a few miles up the coast from Portland. It is not thought the vessel has sustained serious injury, although it will be a troublesome task to put it in commission again.

The S. S. Modoc will operate on the Pomona's run between Portland and Salem, during the time that boat is being raised and repaired. The Oregon City Transportation Co. chartered the Modoc from the O. R. & N. Co.

The steamer Carmel struck the bar while entering the Columbia river and smashed her stern post, destroying five feet of keel and opened several seams in the hull. The Carmel was placed on the Portland run in place of the R. D. Inman, which stranded several miles up the coast from San Francisco.

Tacoma—Ten sailing vessels have been chartered to carry the lumber export trade this season. The vessels are expected to arrive in this harbor to load lumber at the various mills in the course of a few weeks. The coast-wise shipping will also be much heavier than last month.

The Alaska Packers' Association have awarded to Crawford & Reed a contract for a cannery tender. The dimensions are 65 feet long, 13 feet beam and six feet in depth.

The Osaka Shoshen Kaisha, the new Japanese steamship line operating between the Orient and United States ports, have decided to handle their own stevedoring work at this terminal.

Victoria, B. C.—The British steamer Georgia arrived in Victoria, B. C., listed 20 degrees to port. During a gale and while a heavy cross sea was running, the cargo shifted. Considerable damage was done to the cargo.

The turret steamer Clan Macfarlane, while in the vicinity of Cape Flattery, was swept by a heavy sea, which carried away four of her life boats, a part of the pilot house, and sent to his death a member of the crew.

The tug Daisy, which stranded at Tumbo Island two weeks ago, has slipped from the reef into deep water and foundered. There is no possibility of the tug being salvaged.

The executive of the Canadian Pacific R. R. has authorized the construction of a new steamer to replace the City of Nanaimo. Tenders will be called for shortly, and it is planned to have the new vessel, which will be of steel, in commission early next season.

Vancouver, B. C.—The stevedores in the employ of the Vancouver & Victoria Stevedoring Co. have demanded an increase of five cents an hour on day work and ten cents an hour on night work.

Seattle—The Alaska S. S. Co. have placed in commission two of its disengaged vessels, the Farallone and the Santa Ana. Captain C. L. McGregor will take command of the Farallone, while Captain Frank W. Clinger will have charge of the Santa Ana. The Farallone will run on the Southeastern route and the Santa Ana is scheduled for the Skagway run.

The armored cruiser St. Louis is receiving an overhauling, which will cost \$100,000, preparatory to the cruiser leaving for the turbulent waters of South America to protect American interests during the political disturbances.

The S. S. Argo is to run on a new schedule, commencing the first week of April. The vessel will make two trips between Astoria and Tillamook, calling at Portland once a week. This schedule will be in effect during the summer months only. Captain R. J. Dunham, a part owner of the Argo, will relieve Captain E. Anderson of the command of that vessel.

NORTHERN COAST NOTES.

Portland.—The new dredge Clatsop, which is to take the place of the U. S. Ladd in the Lower Columbia river, is expected from the Atlantic Coast in about a month. The castings and pipe line have already arrived in this city.

The bar at the mouth of the Columbia has deepened a foot since last season, due to the effects of the Government jetty recently constructed at that point. Vessels have no difficulty in crossing.

Seattle.—Captain A. J. Sewell of the steamer Fidalgo will be compelled to pay a fine of \$100 for navigating his steamer after his license had expired. The Department of Commerce and Labor was appealed to by Captain Sewell, but the secretary refused to take up the captain's cause.

Eureka—The bark W. B. Flint, a vessel of 746 tons net, has been sold to Mr. P. Nelson. The former owner of the bark was F. W. Van Sicken.

Bandon, Oregon—Three different parties are contemplating additions to their fleets running out of this port. E. T. Kruse, the owner of the Elizabeth, is proposing a sister ship for the port, and the Alliance Company intend to build a boat to touch Coos Bay, Bandon and Eureka, with Portland as a terminal. Portland parties interested in a commercial aspect are figuring on a boat to ply between here and Portland, calling at Coos Bay and Tillamook.

That Congress will appropriate sufficient funds to dredge the river and fix the bar of the Coquille river is thought to be the significance of the recent act of Congress in ordering the Coquille river resurveyed from the mouth to Myrtle Point.

Grays Harbor—While attempting to cross out over the bar in a sixty-five-mile an hour gale, the steamer Willapa was forced to put back into the harbor. While turning to put back the steamer presented a broadside to the gale, taking on board a tremendous sea, which carried away 200,000 feet of lumber and injuring the vessel otherwise.

Astoria—The steam schooner South Bay ran into a submerged log which fouled the propeller, bending it so badly that it was possible to make only 96 revolutions. It is possible the vessel was otherwise injured, and she will be placed on the drydock at St. John for an examination before any lumber is loaded.

LOCAL NOTES.

Howard street Wharf No. 2 has been assigned to the U. S. Lighthouse Department for the steamers Madrona and Sequoia, at a monthly rental of \$100, which includes shed, dockage and tolls.

The Western Pacific R. R. Co. has let contract for the construction of its western terminal at the Oakland mole to G. D. Patterson & Co. of San Francisco, on a bid of \$100,000.

The American ship Fort George, which sailed from New York July 26, carrying a general cargo for the Hawaiian Islands, has been posted uninsurable at Lloyd's. The vessel has been on the overdue list at 90 per cent the last three months.

The Fort George was last spoken August 27, in latitude 11 north, longitude 5 west.

PERSONAL.

Mr. F. Pendleton, a Portland merchant, has been appointed State Pilot Commissioner in place of Mr. N. D. Wheelwright, resigned.

Assistant Surgeon J. H. Oakley, chief quarantine officer for the district of Puget Sound, will be examined April 5, at San Francisco, for promotion to the grade of surgeon in the marine hospital.

Mr. P. S. Teller has been appointed on the Board of Harbor Commissioners, in place of H. J. Crocker, resigned.

Pacific Merchant Marine

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The wide-awake, hustling policy of ship owners on the Great Lakes has demonstrated what can be accomplished by united efforts, realizing the importance of developing their coast wise traffic, and surrounding it with protective legislation, by which to preserve American commerce for American ships and seamen. Results have shown the progress and development of the marine industry on the Great Lakes; this in itself constituted an object lesson for Pacific Coast merchants and shipowners, which, if they had profited by, would not have left them bemoaning the loss of a merchant marine on the Pacific.

The power vested in Congress by the Constitution of the United States grants to that body exclusive power to regulate shipping upon the navigable waters of the United States and as to the American vessels upon the high seas, this section of the Constitution is brief and very much to the point. The very intent and purpose of this section was to prevent favoritism and unjust discrimination between localities and persons. Congress, like the individual, is swayed more or less by public opinion and demands; left entirely to their own resources, conclusions are reached which are not always for the best interests of the community at large, and are frequently open to much adverse criticism by the public and press in general. Congress has learned, therefore, to consult the public taste in matters of importance and in doing so has at least legislated for the best interests of the majority of our population. Selfish or minority interests were unable, for a time, to cope with these conditions, and the professional lobbyist was brought forward, quick, active, and alert to every phase of the interests which he represented; knowing his position depended on the quality of the results of his efforts, backed by the sole ambition and one object on the one side and opposed by a general mass of questions on the other; success depended on his ability to present his argument with a marked degree of sincerity, a component part of his stock in trade; thus the professional lobbyist has joined the ranks of the licensed aristocracy of America.

The lobby system is one of the oldest in history and has been severely and justly criticized from its inception, which criticism was but the incentive by which the lobby-

ist advanced and reached the same degree of perfection as that attained by other sciences; but doubly so were the incentives of the lobbyist; fully aware of the many weak points of his occupation; well informed upon conditions which would soon demand of him a combat with a foe worthy of his steel, he has struggled hard and reached his so-called present high standard of excellence.

To oppose the lobby by the principle of diamond cut diamond would be likened to a step in the opposite direction; methods of merit and truth are the only recourse and organized efforts compose the only defensive weapon left in the hands of the oppressed.

The notorious neglect of Pacific Coast resources at the hands of Congress may or may not be attributed to lobbyism; other causes have contributed largely to this condition, chiefly among which is our own carelessness and neglect, until the present time, when, goaded to desperation by the red flag of a foreign commerce, we are seeking a remedy for the evil. Are we about to give up in despair? If so every hour thus consumed leaves us less able to do anything. Or are we still hoping against hope that relief will come from those who have proved our undoing in the past? These same methods were tried by the merchants and shipowners on the Great Lakes; results did not follow; with typical aggressiveness and a thorough commercial training, natural conditions and a rightful inheritance prompted some of the best known men in public and commercial life to the organization of interests and concentration of efforts in behalf of their merchant marine. The coastwise laws and resulting benefits is the outcome of this wise and up-to-date policy; completing this minor step in their efforts, success led them to procure their full measure of rights, and the present organization was brought into existence.

The Merchant Marine League of the United States was organized at a public dinner given to Aaron Vanderbilt at Cleveland, Ohio, in November, 1904, from which time the organization has flourished and established active working branches in many states of the Union; but Pacific Coast States have neglected this chance of helping themselves; content, as usual, with tomorrow in place of today, the Coast States have watched the efforts of the League to restore the American flag on the high seas; have calmly awaited the result of these efforts without offering to assist in a cause which means so much for their industrial future. Rivalry in the development of Pacific Coast ports is the will-o-the-wisp which influences concerted action; but the time has come when this dog-in-the-manger policy must be cast aside, and whether one section of the Coast is favored more than another is a matter of little consequence. If merit and jealousy form a couple of equal and opposite forces with which we are contending, unity of action should at once determine the resultant of the two forces and erect a headstone to the memory of present deplorable conditions.

The Merchant Marine League of the United States has demonstrated its sincerity in an ability to cope with the subject of over-sea trade. All States in the Union are eligible to membership therein; none better qualified to participate in the success of, or who will receive greater benefit thereby than those bordering the Pacific Ocean. In the near future California, Oregon and Washington will be called upon to attend the opening of the Panama Canal. At the present time the same States are divided against themselves for supremacy in both oversea and coastwise commerce; in the meantime for-

eign nations are reaping the benefit. What, then, are the natural conclusions to be determined? Within this possibility is the organization of a branch of the American Merchant Marine League of the United States in each of the three States mentioned. A convention to be held in San Francisco, at which would be displayed our unlimited commercial resources, and if entered into with a full knowledge of its importance would contribute more to the rehabilitation of the American Merchant Marine than all other influences combined. This convention would bring to this city those who would be critical; those who are unacquainted with us would accept the situation as it existed in reality, whose opinions are formed from experience and who would learn that the Pacific Coast offered ample security for the investment of capital in marine enterprises.

The San Francisco branch of the Pacific Association of Amateur Oarsmen have petitioned Mayor Taylor for representation on the Fourth of July committee, and that sufficient funds shall be appropriated by the committee to include a rowing regatta as a feature of the coming celebration. Many reasons exist for granting the petition of the Amateur Oarsmen.

Invariably Fourth of July celebrations in San Francisco have been confined to a limited space and of such a character that our citizens had but one choice of entertainment on that day, and points of vantage for viewing the military parade have been so crowded and congested that numerous accidents have occurred, and the expense to the city for preparing for the parade, apart from the decorations required, that it has always been a question of "does the means justify the end?"

The pleasure boats and small commercial craft in and around San Francisco bay demonstrates the fact that a large number of our people are interested in aquatics, and will accept every opportunity of indulging in this form of amusement; yet there are many in our midst who have never witnessed a yacht race or rowing regatta.

In many parts of the world, very much less adapted for aquatic sports, entertainment of this kind draws upon almost the entire population of the section represented, but in San Francisco, with every advantage, where no expense would be required, except the appropriation of sufficient money to purchase appropriate prizes, nothing has been done for many years to encourage marine sports.

If the sentimental side of this question does not appeal to his honor the Mayor, a practical view should be taken of the subject by all cities and towns bordering on San Francisco bay, who should offer every inducement to their ambitious citizens whereby to acquire either for pleasure or profit such appliances as they desire and thus primarily open the way for future participation in a resource of the bay cities which sooner or later will prove to be one of their greatest sources of revenue, tending to develop the training of youth in boat building, navigation, and ultimately engaging in matters marine from which to draw efficient and worthy representatives of the United States in either peace or war.

The Board of Health of San Francisco is urging the passage of an ordinance regulating the sale of crabs, crawfish and other shell fish. The principal abuse of this industry consists in the methods of unscrupulous dealers who purchase the fishermen's catch, as will be readily seen from a visit to the fishing fleets' head-

quarters at Meiggs' Wharf, where the trim little vessels, nets, buildings and general equipment of the fishermen are models of neatness.

SOUTHERN COAST NOTES.

Vera Cruz, Mex.—A recent earthquake has caused the waters of the harbor to recede, leaving it so shallow that vessels drawing 24 feet touch the bottom.

Wilmington—The war department have asked the city trustees for a survey for two channels to be dredged northerly from the turning basin, one channel to run in a northeasterly direction, the other northwesterly, both to be 200 feet wide, and 20 feet deep at low tide.

Pacific Grove—A wireless station has been established on the heights back of Monterey.

Long Beach—Bids are being received by the municipal wharfage commission for the construction of bulkheads and docks for that portion of the proposed city wharfage which lies near the harbor mouth.

Long Beach.—The Western Pacific R. R. Co. is having a tug boat constructed for use in San Francisco bay which will be completed in about three months. The dimensions are: 120 feet in length, 24 feet wide and 12 feet in depth.

Los Angeles.—The steamer St. Vallier, owned by the Colorado Navigation Company, capsized a few days ago, and was blown up with dynamite to prevent the formation of a sand bar around it.

CHANGES AMONG SHIP'S OFFICERS.

First Officer R. Rgerup of the S. S. Senator was compelled to lay off a trip on account of sickness in family, and J. B. Rohan will be temporarily installed in his place.

Third Officer Morino of the S. S. Acapulco was relieved by J. O'Hearn.

Fourth Officer Gilboy of the S. S. City of Pueblo transferred to third officer of the President, and R. Dean installed in his place.

Capt. E. B. McMullen, senior mate of the North Western S. S. Co., of Seattle, will succeed Capt. W. McKay as master of the steamer Dora, plying between Valdez and Unalaska.

HAWAII NOTES.

Major Winslow, U. S. A. lighthouse engineer, and Lieutenant Commander Moses are in the Islands inspecting the proposed sites of a first-class lighthouse to be constructed at a cost of \$60,000. The light will be erected on the island of Kauai and the exact location will be decided definitely by the inspectors.

Major Winslow and Lieut. Moses will also inspect the buoys at the different stations along the coast line.

The Naval Militia steamboat Alert had its regular cruise around the bay last Sunday. Starting from Sausalito at noon and proceeding to the vicinity of Red Rock. Instructions in signaling and Boat drills were the order of the day. Lieut. Commander Pratt from the U. S. S. Pensacola and Paymaster McMillan of the Naval Training Station were guests of Captain Bauer of the Alert.

The class in navigation from the Humboldt Evening High School were also guests on board for instruction in compass and chart work.



PLEASURE CRAFT



The yachts of the Corinthian Club came out of their winter quarters Sunday, April 4, and as many of the boys have been taking advantage of the good weather and have put in several Saturdays and Sundays scraping and cleaning up, not a few will be ready to go immediately into commission.

Motorboating on San Francisco Bay, or elsewhere, seems to be rapidly coming to the front, and many of the old-time yachtsmen are taking up this comparatively new pastime.

The devotees to this sport are beginning to realize the superiority of our locally built engines over the lighter and less serviceable machines of Eastern manufacture, and it is with pleasure we note that most of the boats now building are being equipped with California built engines.

It is rumored that the members of the Pacific Motor Boat Club wish to disband and consolidate with the Corinthian Yacht Club as a motor boat annex. Whether this will meet with the approval of the doughty sons of Aeolus is rather uncertain, but, should this step be taken, it would add materially to the Corinthian fleet.

The Aquatic Improvement Association of San Francisco has recently been formed with the object of arousing interest in San Francisco and California in aquatic sports and to provide for the foundation of a water park for rowing, yacht and swimming clubs, with a convenient anchorage for yachts and launches, a pier, and public baths. The association has received the indorsement of the various clubs about the bay.

Fred Klarman is building three 25-foot fishing type cruisers of his own design. These boats are a modification of the ordinary "crab boats" used by the Italian fishermen, which type has proved very successful on the bay.

Mr. Klarman is also to build a 34-foot auxiliary yawl from the plans of Stuart B. Dunbar, a local designer, for use in Hawaiian waters.

HOUSEBOATING.

With the opening of spring, coming of summer, and school vacations, preparations are being made for almost every branch of outdoor life, sport and recreation. Houseboating has many advantages and found many admirers, and each year the number of patrons increases, as possibly no other summer pastime combines so well the attractions of recreation and solution of the summer problem.

In increasing numbers families leave their city homes for the country or shore during the hot months of the year. But most of the desirable resorts within communicating distance of Pacific Coast cities are expensive and the man of moderate means frequently is forced to send his family to some place a long distance from town, at a point so distant that he himself cannot join his family except for an occasional holiday or Sunday.

This, of course, is a hardship for all concerned, but the children must be in the country; and the house-

boat solves the problem for those who enjoy life on the water. The houseboat can be built to fit almost any purse and there are few cities which have not, within an hour by rail or boat, a suitable place where a houseboat may be moored—the business man may go back and forth each day. A mode of living is thus made possible quite the reverse of the routine city life, which adds materially to the health and happiness of all.

The great majority of us are "hewers of wood and drawers of water," and to such houseboating makes the strongest appeal.

The houseboat has no means of propulsion to move it from place to place, the main object being to select a favorable location which combines a good base for supplies, clean water, sheltered anchorage and convenience of access to the city.

A small gasoline launch is a useful adjunct to the houseboat, serving for tender, express and market boat and a great convenience for short trips and near by excursions. The advantages of the marine gasoline motor need not be extolled here; suffice to say that these handy little boats have now been brought to a very high point of perfection. In the absence of a motor launch a rowboat makes an excellent substitute. If the family affords a servant, one should be selected who can swim and handle a boat, enabling the children to acquire both of these useful accomplishments with a combination of amusement, recreation and muscular development.

SHIPBUILDING NOTES.

Union Iron Works.

General hull repairs to the S. S. Edward Sewell.

S. S. Explorer having new tail shaft made and installed.

Steam schooner Rainier on the floating dock for minor repairs.

U. S. S. S. Porter at works for engine, boiler and hull repairs.

S. S. St. Helens on floating dock for minor repairs.

S. S. President on Hunters Point dry dock for minor repairs.

P. C. S. S. Green having repairs made to wheel, and also being cleaned and painted.

Risdon Iron Works.

The various improvements on the A. P. S. S. Admiral Sampson are about completed and the vessel will be ready to sail on April 7 for Puget Sound, inaugurating a new schedule which will include San Pedro, Seattle and this city.

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LOCAL NOTES.

The steamer Napa City has been chartered by the Petaluma & Santa Rosa Railway Company, to run alternately with the company's steamer Gold. Handicapped by having only one steamer to handle the ever increasing shipments, the company was obliged to run another steamer.

The Mexican steamer Curacao was forced to make port in total darkness owing to an accident to her dynamo. Coal oil lamps were pressed into service while ordinary lanterns were used for headlights and signals.

Owing to the unusual amount of freight collected on the last trip of the steamer San Juan, from Ancon to San Francisco, steerage passengers were placed in the ship's hospital. As this is in violation of the navigation laws the Pacific Mail S. S. Co. is liable to a fine of \$200.

The propeller of the U. S. cruiser Raleigh caught in the shaft of the U. S. cruiser Cincinnati and several leaks on both ships were sprung. As soon as the extent of the damage is ascertained an investigation will be held to fix the responsibility for the accident.

Col. John B. Bellinger is to be relieved of the charge of the transport service and Major Chauncey B. Baker of the quartermaster's department of the army will arrive some time in July to take his place. Major Baker is a graduate of the Infantry and Cavalry School of the Army in the class of 1889, and is known as a man of ability. Colonel Bellinger will be placed in charge of the army depot.

The chief wharfinger's office at the Washington street bulkhead has been completed and is ready to be occupied. The new building cost \$2,489.

Plans are being laid to establish a day-light steamer service between Sacramento and Stockton. Arrangements have been made by the Lauritzen Transportation Co. with the Harbormaster of Stockton to dock the launches Duchess and Empress. The launches are new boats, equipped with 150 horse power engines, draw five feet of water, are 90 feet long, and carry 150 passengers.

Captain Commandant Worth G. Ross and Chief Engineer C. A. McAllister of the revenue cutter service are expected to arrive on the coast to make an inspection of the revenue cutters detailed to this division.

A fine of \$50 was imposed on Capt. N. Zeigenmeyer, of the Jebson & Ostrander steamer Erna, for entering the bay without a bill of health from Victoria. The usual fine for this offense is \$500, but as the ship did not discharge or take aboard passengers or freight at Victoria, only a small portion of the fine was imposed.

The Japanese training ships Aso and Soya, en route to Puget Sound via San Francisco, are due to arrive in this port April 7.

The bulkhead wharf along section 12 of the new seawall has been completed by the Pacific Construction Co. at a cost of \$64,500. Contractor Wakefield has 75 per cent of the new pier No. 40 completed.

The steamers Jim Butler, Olsen & Mahoney, and J. Marhoffer, and eight chartered vessels under a new traffic deal, are to carry freight from San Francisco to Portland, there connecting with the North Bank railroad.

The Healy Tibbitts Construction Co. have been awarded a contract by the State Board of Harbor Commissioners for the construction of a driveway from the old Mail dock to the foot of Fremont. The driveway will cost \$600.

Secretary Thorpe submitted a draft of the amendment No. 61 of the rules and regulations of the Harbor Commissioners pertaining to dockage rates on ocean vessels in the bay. According to the draft vessels of over 200 tons \$4 will be charged for the first 200 tons, and $\frac{3}{4}$ cent for each additional ton, and in vessels of 200 tons, and under the charge will be 2 cents a ton. The draft took effect April 1st.

The engineer of the Board of Harbor Commissioners submitted a bill charging George E. Billings \$396 for damage inflicted on the sea wall by the steamer Shua Yak.

The California Navigation and Improvement Co. is liable to a fine of \$600 for allowing three barges to remain in Mission bay at night without displaying light signals.

The S. S. Kansas City, a first class passenger steamer which has been operating on the Atlantic in the service of the Ocean S. S. Co., has been purchased by the San Francisco & Portland S. S. Co. The vessel will be run in conjunction with the steamers George W. Elder and Senator. The Kansas City is a vessel of 3,679 gross tons, 327 feet long, 45 feet beam and 18 feet depth of hold. The consideration is said to be \$250,000.

OBITUARY.

Rev. J. P. McIntyre, chaplain on the battleship Oregon during the Spanish-American War, died in Seattle from exposure and nervous disorders contracted during the war and following the San Francisco earthquake and fire.

COLUMBIA RIVER PILOTAGE AND TOWAGE RATES**BAR PILOTAGE**

For piloting an inward or outward bound vessel to or from Astoria over the bar, or from within the bar to the open sea, all vessels shall pay \$5 per foot draft, and 2 cents per ton for each and every ton registered measurement.

The pilot who first speaks a vessel, or duly offers his services thereto as pilot, on or without the bar pilot grounds, is entitled to pilot such vessel over the same; but the master may decline to accept, and may navigate his vessel over said pilot grounds without a pilot; but, nevertheless, he shall, if inward bound, pay full pilotage, and if outward bound, one-half of above rates.

RIVER PILOTAGE

For piloting a vessel upon the river pilot ground between Astoria and Portland, whether ascending or descending, all vessels shall pay \$2 per foot draft and 2 cents per ton for each and every ton registered measurement; and the Board is authorized to prescribe a proportionate compensation for pilot service between other points on said ground, or from one part of a dock to another part of the same dock, the charge therefor shall be a sum not exceeding \$7.50; and the pilot shall, on being thereunto requested by the master of the vessel, be required to do such work, and for such compensation. Provided, however, it shall be optional with the master or person in

charge of such vessel whether he accepts or demands the services of any such pilot; and if the master or other person in charge of any vessel declines to accept the services of a pilot on the river pilot ground aforesaid, the vessel shall not be liable for pilotage.

Columbia River Towage Tariff From the Pacific Ocean or Astoria to Portland and Return for Vessels Other Than Lumber Carriers.

Vessels 500 to 700 tons net register	\$500 00
Over 700 to 1000 tons net register	550 00
Over 1000 to 1200 tons net register	600 00
Over 1200 to 1500 tons net register	650 00
Over 1500 to 1800 tons net register	700 00
Over 1800 to 2000 tons net register	750 00
Over 2000 to 2500 tons net register	800 00
Over 2500 to 3000 tons net register	850 00
Hawser charge	\$15.00 each way

Vessels towed from the sea to Astoria and return only, will be charged 70 per cent of the rate charged to Portland and return.

Vessels in ballast towed from the sea to Astoria and return, when entering the river as a port of call and departing without cargo, will be charged 25 per cent of the rate to Portland and return.

SCHEDULE OF RATES FOR TOWAGE OF LUMBER SCHOONERS WHEN PLYING BETWEEN PACIFIC COAST PORTS.

From the Pacific Ocean—

To Portland, Ore., or Vancouver, Wash., and return to Pacific Ocean, 50 cents per 1,000 feet.

To Astoria and return to Pacific Ocean, 25 cents per 1,000 feet.

NOTE.—The above rates apply only to vessels arriving light or in ballast. No charge is then made for hawser. If vessel loads at two points outside of Portland harbor, an additional charge of 10 cents per 1,000 feet is made.

When vessels arrive with cargo, the rate per 1,000 feet to both ports indicated above is increased by 25 cents, and a hawser charge of \$15 each way is also made. Charges will be computed on the actual number of feet of lumber carried from Portland, Ore., or Vancouver, Wash., subject to minimum charge based on 300,000 feet of lumber. The rates named from Pacific Ocean and return to Pacific Ocean, apply on vessels for lumber mills maintaining their own river towage service between Astoria and Portland, Ore., or Vancouver, Wash., and when handled by their own steamers, Astoria to Portland, Ore., or Vancouver, Wash., and return only. The tow-boat company reserves the right to decline to tow vessels through drawbridges at Portland when deemed unsafe, account unfavorable weather or water conditions.

INSTRUCTIONS AND RATES COVERING HARBOR MOVES AND LIGHTERAGE.

Moves: Vessels will be moved within the harbor limits of Astoria or Portland at a charge of \$20 for each steamer used for each move.

Lighterage: The channel of the Columbia and Willamette Rivers having been deepened to admit vessels drawing 25 feet, in the event of its becoming necessary from any cause to lighter vessels bound outward from Portland, carrying cargoes of grain and its products foreign, such lighterage will be handled free of charge by the tow-boat company.

Any necessary lighterage of inbound vessels destined to Portland will be handled at a charge not exceeding \$1.00 per ton, weight or measurement at option of tow-boat.

GRAYS HARBOR TOWAGE RATES

Towage rates at Grays Harbor are fixed on a basis of 40 cents per thousand feet of lumber carried outward.

Moving vessels within the harbor limits is done by small steamers, without regard to a fixed tariff. Usual charges for this service run from \$2.50 to \$10.00, according to distance.

PUGET SOUND PILOTAGE

Pilotage is not compulsory. If pilot is employed by vessel bound in, rate subject to agreement. Tugs have full charge of vessels in tow, tug-boat masters all being Government licensed pilots.

PUGET SOUND TOWAGE RATES—SINGLE DECK VESSELS

TONS	BETWEEN CAPE FLATTERY AND								BETWEEN PORT TOWNSEND AND								BETWEEN PORT ANGELES AND								
	Port Angeles	Port Townsend	Hadlock	Port Gamble, Port Roche Harbor	Anacortes	Bellingham, Everett, Port Madison, Seattle, Port Blakely, Shishole Bay*	Tacoma, Cowlitz, Che- halis, mainau, Ladysmith, Blaine	Olympia, Moxleyville, Van- couver, Nainimo, Steves- ton	Hadlock	Diamond Point	Pungeneas	Port Gamble, Port Ludlow	Anacortes	Bellingham, Everett, Roche Harbor, Seattle, Port Blakely, Shishole Bay*	Tacoma, Blaine	Olympia, Cowlitz, Che- halis, mainau, Ladysmith	Moxleyville, Vancouver, Na- naimo, Steveston	Port Townsend	Hadlock	Port Gamble, Port Ludlow	Anacortes	Bellingham, Everett, Port Madison, Seattle, Port Blakely, Shishole Bay*	Roche Harbor	Tacoma, Cowlitz, Che- halis, mainau, Ladysmith, Blaine	Olympia, Moxleyville, Van- couver, Nainimo, Steves- ton
150 to 250	\$ 40	\$ 65	\$ 75	\$ 85	\$ 90	\$ 95	\$105	\$135	\$10	\$10	\$10	\$25	\$ 28	\$ 30	\$ 40	\$ 70	\$ 85	\$ 25	\$ 35	\$ 50	\$ 53	\$ 55	\$ 45	\$ 65	\$ 95
251 to 350	43	75	90	100	110	115	125	155	15	15	15	30	35	40	50	80	100	30	45	60	65	70	60	80	110
351 to 450	50	85	102	120	125	135	145	175	17	20	20	35	45	50	60	90	115	35	52	70	78	85	70	95	125
451 to 550	53	90	109	128	137	145	155	185	19	22	23	35	45	55	65	95	125	38	57	75	83	90	75	100	135
551 to 650	55	95	112	135	145	155	165	195	20	25	25	40	50	60	70	100	130	40	60	80	90	100	80	110	140
651 to 750	58	100	122	143	155	165	175	205	22	25	28	45	55	65	75	105	135	43	65	85	97	105	85	115	145
751 to 850	60	105	128	150	163	175	185	215	23	30	30	45	60	70	80	110	145	46	68	90	105	115	90	125	155
851 to 950	63	110	134	159	171	185	195	225	24	33	33	48	62	75	85	115	150	48	72	95	110	125	95	135	165
951 to 1050	65	115	140	165	180	195	205	235	25	35	35	50	65	80	90	120	160	50	75	100	115	130	100	140	170
1051 to 1200	100	160	188	215	225	235	245	260	28	40	50	55	75	90	100	130	170	60	85	115	125	140	115	155	185
1201 to 1500	125	175	200	225	238	250	275	300	30	50	60	60	80	100	110	135	175	75	105	135	145	160	115	155	185
	150	200	225	250	265	275	300	325	35	60	70	70	90	110	125	150	200	100	125	150	165	180	130	170	200
	175	225	250	275	288	300	325	350	40	70	80	80	100	125	150	175	225	125	145	175	195	210	155	195	225

DOCKING—150 to 250 tons, \$5.00; 251 to 350, \$7.50; 351 to 450, \$10.00; 451 to 550, \$12.50; 551 to 650, \$15.00; 651 to 750, \$17.50; 751 to 850, \$20.00; 851 to 1000, \$25.00.

Towage to or from Fraser River points above Steveston subject to special rates. *Towage from Shilshole Bay to Inner Harbor, Ballard, and Inner Harbor, Ballard, to Shilshole Bay, subject to special rates.

HAWSER CHARGE—Vessels 500 tons and under, \$5.00 each way; Hawser Charge vessels over 500 tons, \$10.00 each way.

Rate from Vancouver to Sound ports above Port Townsend, on vessels of 1000 tons and over, same as sea rate to Sound port. Vessels towing from sea to Tacoma or Seattle and calling at Port Townsend or Port Angeles for orders will be given a direct rate. Captains to wire agent of tugs 48 hours' notice of when tug is required.

Whistle Signals.—1 Whistle, set fore and aft sails. 2 Whistles, set square sails. 1 Long and 2 Short Whistles, haul in port braces. 1 Long and 2 Short Whistles, haul in starboard braces. 4 Whistles, take in furl sails. 2 Short and 1 Long Whistle, get anchor ready. 3 Whistles, let go hawser.

Towing in Foggy Weather.—1 Whistle, port helm. 2 Whistles, starboard helm. 1 Long and 2 Short Whistles, fog signals.

Display signals when passing Tatoosh if you wish to be reported. Flash a light when you let go hawser at night.

PUGET SOUND TOWAGE RATES—VESSELS OF 500 TONS OR OVER

TONNAGE		VESSELS FROM		TO OR FROM CAPE FLATTERY AND THE FOLLOWING PLACES							TO OR FROM PORT TOWNSEND AND THE FOLLOWING PLACES							TO OR FROM PORT ANGELES, ROYAL ROADS AND FOLLOWING PLACES.						
				Royal Roads, Port Angeles	Discovery, Townsend, Diamond Point	Hadlock	Gamble, Ludlow	Everett, Madison, Ladysmith, Chemainus, Seattle, Cowichan, Blakely, Bellingham	Tacoma, Utsalady, Nanaimo, Vancouver, Moodyville, Steveston	Comox, B. C.	Hadlock	Diamond Point	Gamble, Ludlow	Seattle, Madison, Blakely, Bellingham, Everett	Tacoma, Utsalady, Add \$25 to Cowichan, Ladysmith, Chemainus	Nanaimo, Vancouver, Moodyville, Steveston, Add \$25 to Comox	Townsend, Diamond Point	Hadlock	Gamble, Ludlow, Chemainus, Ladysmith, Cowichan	Everett, Seattle, Blakely, Madison, Bellingham	Tacoma, Utsalady, Nanaimo, Vancouver, Moodyville, Steveston	Comox, B. C.		
851	to 1000 tons	\$125	\$175	\$200	\$225	\$250	\$275	\$300	\$ 30	\$ 50	\$ 60	\$100	\$110	\$175	\$ 75	\$105	\$135	\$150	\$175	\$200				
1001	to 1200 tons	150	200	225	250	275	300	325	35	60	70	110	125	200	100	125	150	175	200	225				
1201	to 1500 tons	175	225	250	275	300	325	350	40	70	75	125	150	225	125	150	175	200	225	250				
1501	to 1800 tons	200	250	275	300	325	350	375	45	80	100	150	175	250	150	175	200	225	250	275				
1801	to 2000 tons	225	275	300	325	350	375	400	50	90	125	175	200	275	175	200	225	250	275	300				
2001	to 2500 tons	250	300	325	350	375	400	425	55	100	150	200	225	300	200	225	250	275	300	325				
2501	to 2750 tons	275	325	350	375	400	425	450	60	115	175	225	250	325	225	250	275	300	325	350				
2751	to 3000 tons	300	350	375	400	425	450	475	65	130	200	250	275	350	250	275	300	325	350	375				
3001	to 3500 tons	325	375	400	425	450	475	500	70	150	235	275	300	375	275	300	325	350	375	400				

Hawser charge, \$10.00 each way.

Towage to or from Fraser River points above Steveston subject to special rates.

Rate from Vancouver to Sound ports above Port Townsend, same as sea rate to Sound port.

Docking vessels, \$25. Vessels towing from sea to Tacoma or Seattle and calling at Port Townsend or Port Angeles for orders will be given a direct rate. Captains to wire agent of tugs 48 hours' notice of when tug is required.

Whistle Signals.—1 Whistle, set fore and aft sails. 2 Whistles, set square sails. 1 Long and 1 Short Whistle, haul in port braces. 1 Long and 2 Short Whistles, haul in starboard braces. 4 Whistles, take in and furl sails. 2 Short and 1 Long Whistle, get anchor ready.

3 Whistles, let go hawser.

Towing in Foggy Weather.—1 Whistle, port helm. 2 Whistles, star-board helm. 1 Long and 2 Short Whistles, fog signals.

Display signals when passing Cape Flattery if you wish to be reported. Flash a light when you let go hawser at night.

TIDE TABLE TO WEEK ENDING SATURDAY, APRIL 7.
Golden Gate Entrance to San Francisco Bay.
MARCH

Moon	Day of		Time and Height of High and Low Water									
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.	T.	H.
N	Mon.	1	0:52	3.3	6:56	5.5	14:15	0.1	21:36	4.5		
	Tues.	2	2:04	3.3	7:55	5.5	15:06	0.3	22:20	4.5		
	Wed.	3	3:03	3.3	8:48	5.5	15:48	0.3	23:00	4.9		
	Thur.	4	3:50	3.1	9:36	5.6	16:25	0.3	23:34	4.9		
	Fri.	5	4:30	2.9	10:20	5.5	16:57	0.2				
Full A	Sat.	6	0:04	5.1	5:08	2.5	11:00	5.4	17:30	0.1		
	Sun.	7	0:28	5.1	5:45	2.2	11:45	5.2	18:00	0.5		
	Mon.	8	0:50	5.0	6:20	2.0	12:24	4.9	18:39	0.8		
	Tues.	9	1:14	5.0	6:58	1.8	13:00	4.7	19:08	1.3		
	Wed.	10	1:30	5.0	7:40	1.6	13:42	4.4	19:38	1.7		
3rd. quar. S	Thur.	11	1:47	4.9	8:22	1.3	14:42	4.2	20:14	2.1		
	Fri.	12	2:10	4.9	9:04	1.1	15:52	3.8	20:55	2.5		
	Sat.	13	2:44	5.0	10:02	0.9	17:25	3.8	21:45	3.0		
	Sun.	14	3:25	5.0	11:03	0.7	19:00	3.9	22:50	3.2		
	Mon.	15	4:28	5.1	12:12	0.3	20:08	4.2				
New E	Tues.	16	0:02	3.3	5:48	5.2	13:15	0.0	20:57	4.5		
	Wed.	17	1:18	3.2	7:04	5.5	14:10	0.3	21:35	4.7		
	Thur.	18	2:20	2.9	8:12	5.7	15:04	0.5	22:10	5.1		
	Fri.	19	3:15	2.4	9:15	5.9	15:50	0.5	22:43	5.4		
	Sat.	20	4:06	1.8	10:08	6.0	16:35	0.4	23:16	5.6		
1st. quar. N	Sun.	21	4:55	1.3	11:02	6.0	17:20	0.0	23:52	5.7		
	Mon.	22	5:45	0.8	11:58	5.8	18:08	0.5				
	Tues.	23	0:25	5.7	6:35	0.6	12:56	5.5	18:50	1.0		
	Wed.	24	1:04	5.7	7:20	0.3	14:00	5.1	19:35	1.6		
	Thur.	25	1:42	5.7	8:15	0.2	15:10	4.7	20:20	2.2		
A	Fri.	26	2:24	5.6	9:16	0.2	16:35	4.4	21:10	2.8		
	Sat.	27	3:14	5.5	10:24	0.2	18:02	4.3	22:15	3.2		
	Sun.	28	4:08	5.2	11:32	0.2	19:17	4.3	23:32	3.5		
	Mon.	29	5:20	5.1	12:42	0.2	20:18	4.6				
	Tues.	30	1:00	3.4	6:34	5.0	13:40	0.1	21:05	4.8		
APRIL	Wed.	31	2:10	3.2	7:40	5.0	14:28	0.2	21:44	5.0		
	Thur.	1	2:58	2.9	8:35	5.1	15:08	0.2	22:14	5.2		
	Fri.	2	3:40	2.6	9:25	5.1	15:45	0.4	22:40	5.3		
A	Sat.	3	4:14	2.1	10:14	5.1	16:20	0.7	23:05	5.3		
	Sun.	4	4:46	1.7	10:55	5.0	16:58	0.9	23:26	5.3		

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	20	Mar. 18	Channel changed slightly to the south during the month.
Willapa Bay	27	Mar. 4	Channel slowly working southward.
Columbia River	24	Feb. 6	
Nehalem River			
Tillamook Bay	13	Mar. 2	Channel shifting about 1/4 mile to southward is now 1/8 mile south of the whistling buoy.
Yaquina Bay	15	Feb. 2	
Siuslaw River	3 1/2	Mar. 16	Channel gone to north end of jetty and beacon on high bank marks channel now.
Umpqua River	9 1/2	Mar. 1	South spit making close to inner bar buoy. Leave same on starboard hand crossing in.
Coos Bay	18	Mar. 1	Channel remains about the same.
Coquille River	9	Mar. 26	2 buoys gone; channel in middle between jetties.
Rogue River.			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	6	Mar. 10	Entrance at present immediately opposite mouth of river.
Humboldt Bay	19	Mar. 1	North channel very narrow and crooked, not changing, at present. About 13 feet at low water in south channel.
San Pedro Bay	20	Feb. 24	No change in channel.
San Diego Bay	26	Feb. 25	No change in channel.

Time used, Pacific Standard, 120th Meridian W.
0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS.

Official notice has been given that the outside bar bell buoy at the entrance to Humboldt Bay was reported yesterday as having capsized. It will be replaced as soon as practicable.

Commander Lopez of the Lighthouse Department reports that East Brother Shoal Buoy O, a first-class nun, found dragged out of position, was replaced March 11, 1909. This notice effects the List of Lights, Buoys and Daymarks, San Francisco Bay, page 29.

Agent James Gaudin of the British Columbia Department of Marines and Fisheries has issued notice that later instructions from Ottawa provide that a temporary fixed white light be exhibited at Carmanah Point while the new light is being installed.

Notice is hereby given that South Jetty, Outer End Buoy, 2, a red first-class spar, placed about 650 feet W. by N. of the submerged end of the South Jetty, entrance to Humboldt Bay, Cal., is reported adrift March 30. It will be replaced as soon as practicable.

By order of the Lighthouse Board.

Captain Macdonald of the steamer W. S. Porter reports to the Branch Hydrographic Office that on March 20, at 4:20 p. m., in Lat. N. 40 degrees 53 minutes, Lon. W. 124 degrees 55 minutes, a waterspout passed over his vessel. The spout was first seen on the port quarter distant about one mile, traveling to the northeastward at a speed of 12 to 15 miles per hour. When it came quite close Captain Macdonald blew the whistle and that seemed to have some effect, for as soon as it passed over the vessel (over the poop) it appeared to break up. About five minutes afterward the wind, which had been a fresh gale from the southeast, shifted to a moderate breeze from west and later hauled to northwest at 6 p. m.

Notice is hereby given that San Francisco Light-Vessel No. 70, stationed about $3\frac{1}{4}$ miles outside the bar off the entrance to San Francisco Harbor, $10\frac{1}{2}$ miles 234 degrees 50 minutes (SW $\frac{1}{4}$ W) from Fort Point Lighthouse, and about 500 feet northward of the range line marked by Fort Point Light and Alcatraz Light, was replaced on her station March 26, and Relief Light-Vessel No. 76, temporarily marking the station, was then withdrawn.

No change has been made in Light-Vessel No. 70 as to the characteristics of her lights, fog signals or general appearance.

By order of the Lighthouse Board.

Office of U. S. Lighthouse Inspector, 12th District, 813 Mutual Savings Bank Building, 704 Market Street, San Francisco, Cal., March 26, 1909.

Applications will be received during the next thirty days for filling the position of Blacksmith's Helper at Yerba Buena Lighthouse Depot (Goat Island), with pay at the rate of \$60 per month, and find yourself. Applicants must be citizens of the United States.

Application blanks and full information can be obtained by applying to this office.

R. F. LOPEZ, Commander, U. S. N.

Captain B. L. Bielenberg of the German steamer Hermonthis reports to the Branch Hydrographic Office, San Francisco, Cal., that on March 29, 1909, when in Lat. 38 degrees 30 minutes N., Long. 123 degrees 15 minutes W., he passed 6 or 7 large logs or piles from 60 to 70 feet long and 20 to 24 inches in diameter. Logs had been in water but a short time.

J. C. BURNETT, Lieut., U. S. N., in Charge.

BLUNTS REEF, CAL.

(List of Lights and Fog Signals, Pacific Coast, 1908, page 24, No. 60, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 36.)

Notice is hereby given that Blunts Reef Light-Vessel No. 83 will be replaced by Relief Light-Vessel No. 76 about April 20, 1909. The change will be temporary. The relief light-vessel

will show lights and sound signals having the same characteristics as those of Light-Vessel No. 83, now on the station, excepting that each of the two lights will be shown from the three lens lanterns encircling the mastheads at a height of 46 feet above the water and visible 12 miles in clear weather.

Relief Light-Vessel No. 76 is a flush-deck steam vessel, has two masts, schooner-rigged, no bowsprit, a black smokestack and a steam whistle between the masts, but differs from Light-Vessel No. 83 in having all visible parts from the bow to the middle of the foremast, and from the middle of the mainmast aft, painted red; all visible parts between the fore and main masts, including the middle third of each lantern mast, white. The daymarks at the mastheads have five vertical stripes, three red and two white, and on the springstay, midway between the two masts, there is an oval daymark with one white and two red vertical stripes. The number "76" is in white on each bow and each quarter, and in black on each side of the springstay daymark. The word "Relief" is painted in large black letters on the middle of each side.

By order of the Lighthouse Board.

R. F. LOPEZ.

San Francisco Bay—California.

(List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 29.)

Notice is hereby given that East Brother Shoal Buoy O, a first-class nun, found dragged out of position, was replaced March 11, 1909.

By order of the Light House Board.

R. F. LOPEZ, Commander, U. S. N.

Inspector Twelfth Light House District, 813 Mutual Savings Bank Building, 704 Market Street, San Francisco.

In the Navigation School now meeting at the Mission High School Building, the first class is finishing the subject of dead reckoning and will shortly take up chart work.

The second class is commencing the study of middle latitude sailing. An effort is being made to secure quarters for the navigation class in the Ferry Building, where it is hoped there will be a larger attendance.

The light house board, Washington, D. C., will open bids on April 7 for the construction, delivery and equipment of the first class single screw lightship No. 94. Specifications with blank proposals and other information can be had by applying to the lighthouse board, Washington, D. C.

Santa Barbara—California.

(List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 17.)

Notice is hereby given that Santa Barbara whistling buoy, PS., heretofore reported not sounding, was replaced by a perfect buoy March 12.

Trinidad Head—California.

(List of Lights and Fog Signals, Pacific Coast, 1908, page 26, No. 70, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 40.)

BUOYS MARK NEW CHANNEL.

To mark the newly-dredged channel of the Columbia River the following buoys have been established by the lighthouse department:

Henrici Crossing buoy, 1, second-class spar, in 24 feet of water. Fales' Landing light 132 degrees true (S. E. $\frac{1}{4}$ E. mag.). Henrici Landing range front light, 302 degrees 30 minutes true (N. W. by W. $\frac{1}{4}$ W. mag.). Warrior Rock lighthouse 339 degrees 30 minutes true (N. by W. 1-16 W. mag.).

Henrici Crossing buoy, 2, second-class spar, in 23 feet of water. Fales' Landing light 130 degrees 30 minutes true (S. E. $\frac{1}{4}$ E. mag.). Henrici Landing range front light 309 degrees 30 minutes true (N. W. $\frac{1}{4}$ W. mag.). Warrior Rock lighthouse 338 degrees true (N. by W. 15-16 W. mag.).

Henrici Crossing buoy, 3, second-class spar, in 22 feet of water. Fales' Landing light 133 degrees 30 minutes true (S. E. $\frac{1}{4}$ E. mag.). Henrici Landing range front light 304 degrees true (N. W. by W. mag.). Warrior Rock lighthouse 334 degrees 30 minutes true (N. N. W. $\frac{1}{4}$ W. mag.).

Oregon—Willamette River—The beacons of the following lights have been replaced and the lights relighted:

Swan Island lower light, February 26; Swan Island upper light, February 25.

The Lighthouse Department of Washington, D. C., has approved the recommendation of Captain Pond relating to the installation of oil vapor system of lighting at North Head, New Dungeness, Cape Flattery, Cape Blanco, Yaquina Head, Grays Harbor, Cape Mears, Tillamook Rock, Destruction Island, Umpqua River, Heceta Head, Tree Point, Scotch Gap, and Cape Saryeh. The lights will be installed in the near future. The present lights are the old style wick lamps and the new system of lights is expected to make this immediate vicinity the best lighted district on this coast.

A sub-depot for the purpose of storing light mooring vessels and buoys, will be established at Ediz Hook, Port Angeles. This depot is necessary because of the decision of the lighthouse board to station a lightship at Sweet-sure Bunk. A machine shop, small wharf, mooring dolphins, a storehouse, crane and tramway will be added to the main lighthouse depot at Tongue Point.

NOTICE TO MARINERS.

• In order to avoid any complications with the international distress signal, the call letters of the naval wireless telegraph station at Sitka, Alaska, will be changed to S Z.

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Name.	State.	Locality.	Lat., North.			Long., West.		
			Deg.	Min.	Sec.	Deg.	Min.	Sec.
Waadah Island.....	Washington.....		48	22	40	124	35	30
Gray's Harbor.....	".....	Just south of Grays Harbor light.....	46	53	15	124	07	15
Willapa Harbor.....	".....	Near lighthouse boat landing.....	46	43	00	124	03	00
Ilwaco Beach.....	".....	Thirteen miles north of Cape Disappointment.....	46	27	50	124	03	25
Cape Disappointment.....	".....	Bakers Bay, one-half mile northeast of light.....	46	16	40	124	03	00
Point Adams.....	Oregon.....	Three-fourths miles southeast of Fort Stevens.....	46	12	00	123	57	00
Tillamook Bay.....	".....		45	33	30	123	57	00
Yaquina Bay.....	".....	About one mile south of harbor entrance.....	44	35	30	124	03	54
Umpqua River.....	".....	Near entrance of river, north side.....	43	42	00	124	10	30
Coos Bay.....	".....	Coos Bay, north side.....	43	22	50	124	18	00
Coquille River.....	".....	In town of Bandon.....	43	07	00	124	25	00
Humboldt Bay.....	California.....	Near the old abandoned lighthouse tower.....	40	46	00	124	13	00
Arena Cove.....	".....	Four miles south of Point Arena light.....	38	54	50	123	42	30
Point Reyes.....	".....	Three and one-half miles north of light.....	38	02	20	122	59	30
Point Bonita.....	".....	Near Point Bonita light.....	..	..	..	..	..	..
Fort Point.....	".....	Three-fourths mile east of light on Fort Winfield Scott.....	37	48	10	122	27	50
Golden Gate.....	".....	On beach in Golden Gate Park, San Francisco, three-fourths mile south of Point Lobos.....	37	46	10	122	30	30
Southside.....	".....	Three and three-eighths miles south of Golden Gate Life-Saving Station.....	37	43	18	122	30	18
Nome.....	Alaska.....	At Nome.....	64	30	00	165	23	00

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In the daytime—

1. A gun fired at intervals of about a minute.
2. The International Code signal of distress indicated by N. C.
3. The distant signal, consisting of a square flag, having either above or below it a ball or anything resembling a ball.
4. Rockets or shells as prescribed below for use at night.
5. A continuous sounding with a steam whistle or any fog-signal apparatus.

At night—

1. A gun fired at intervals of about a minute.
2. Flames on the vessel (as from a burning tar barrel, oil barrel, etc.).
3. Rockets or shells bursting in the air with a loud report and throwing stars of any color or description, fired one at a time at short intervals.
4. A continuous sounding with a steam whistle or any fog-signal apparatus.

All officers and employees of the Life-Saving Service will hereafter recognize any of these signals when seen or heard as signals of distress and immediately proceed to render all possible assistance.

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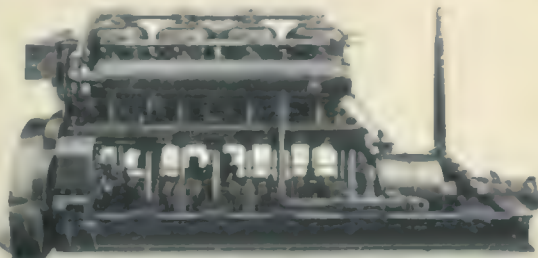
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PACIFIC MERCHANT MARINE

SATURDAY, APRIL 10, 1909

VOL. II

NO. 4

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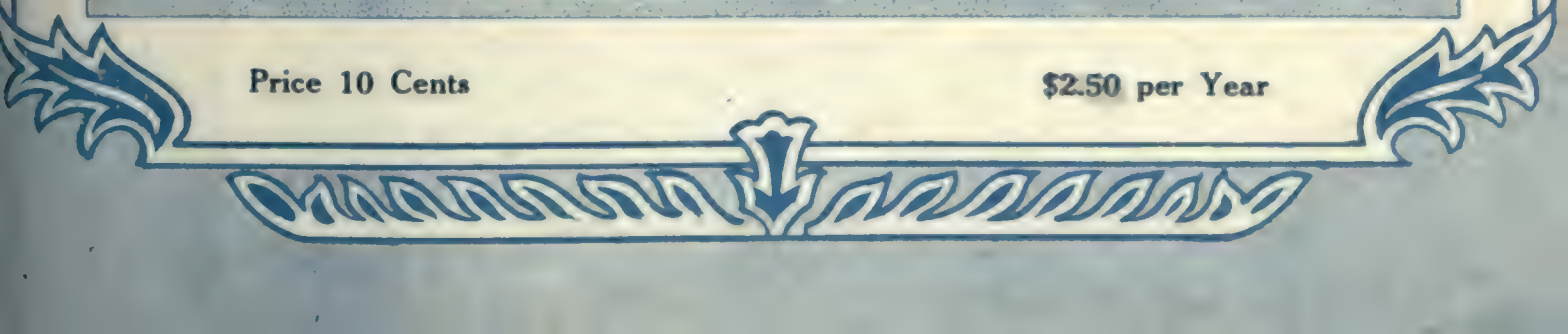
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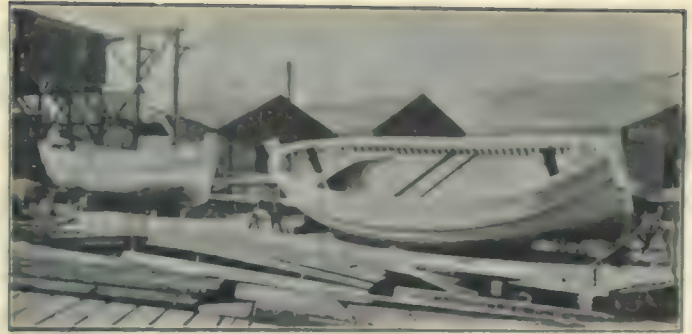
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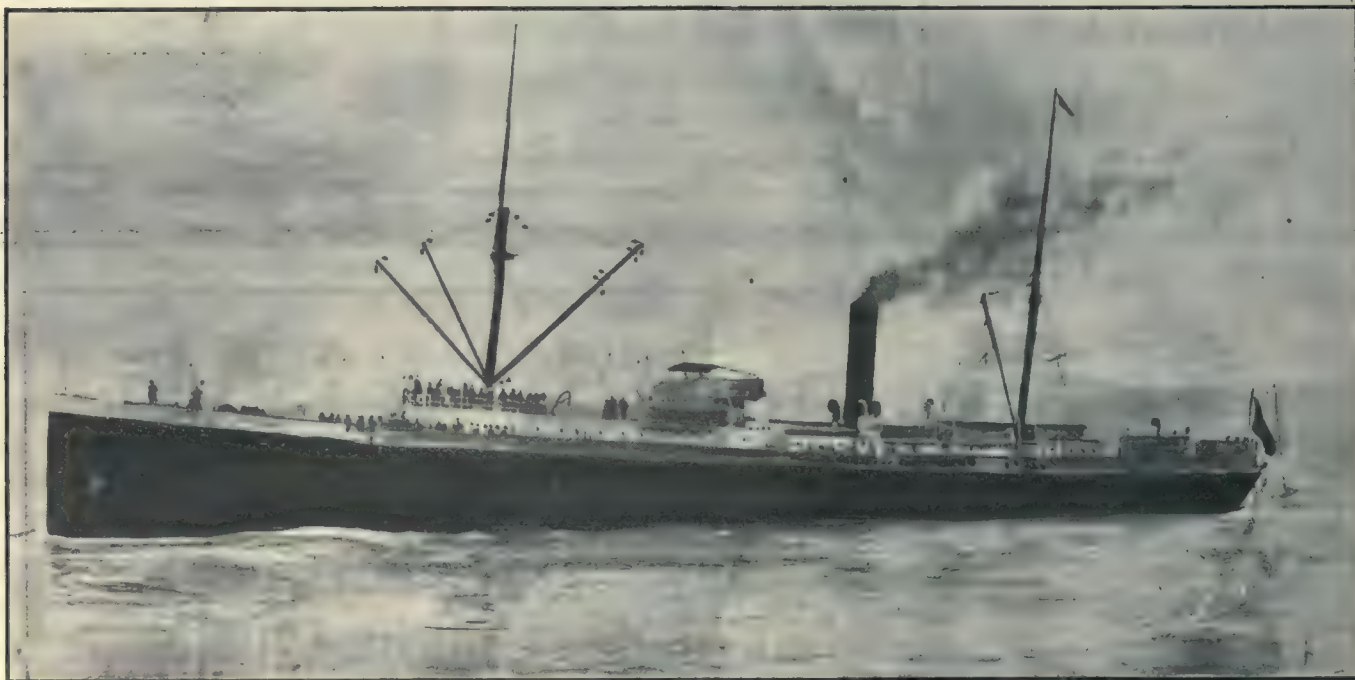
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Volume II

SATURDAY, APRIL 10, 1909

Number 4

SPEECH OF HON. J. SLOAT FASSETT OF NEW YORK IN THE HOUSE OF REPRESENTATIVES TUESDAY, MAY 26, 1908.

However gentlemen may differ in other respects, there is no room for an honest difference of opinion among patriotic Americans as to the desirability of restoring our merchant marine to its former position of importance upon the high seas. Its languishing and dying condition has been a matter of regret and humiliation for fifty years, and yet Congress has taken no effective steps to enable American mariners to meet their deep-sea rivals successfully in the contest for carrying our own goods into the markets of the world. Ninety per cent of the markets of the world are today accessible only by water. The great international contests of modern times are not concerned with armored navies and 13-inch guns, but they have to do with trade, with commerce, with the interchange of products of industry, and the weapons used are skill and thrift, labor, tariffs and subventions and subsidies. The universal cry from every civilized nation is trade and ever more trade, markets and ever more markets, as the power to produce overtakes by leaps and bounds, with the application of steam and electricity, the power to consume and the rivalry for access to the markets and the possession of the markets of the world intensifies. It not only intensifies in energy and aggressiveness, but it intensifies in necessity and utility. Adequate markets for the consumption of our surplus products are indispensable, for they have to do with the welfare of our laboring people, our manufacturers and our merchants. They touch the prosperity of the farm and of the workshop, as well as of the counting-house.

The situation is such that we can not any longer afford to ignore it. The body of our merchant marine lies prostrate and bleeding before us. The situation is too serious to be ignored in the interest of a mere academic attitude of mind. It is a question of national protection, of national security and of the universal welfare of all classes and of all interests among all our people and not of a construction of the Constitution.

It is of twofold significance. First, we should have the carrying capacity, giving us access to the markets of the world for the purpose of commercial profit; second, we should have a navy and a body of seamen in constant readiness to assist our armored ships in case of conflict for the purpose of national security.

The growth of this country during recent years in almost every direction, and in almost every department, has been stupendous and amazing; it has reached proportions so ample as to be practically beyond comprehension; expressed in terms of dollars and of tons the figures actually bewilder us. In a comparatively few years we have quadrupled the number of farms, increased the quantity of their output and their value more than sevenfold. The output of our manufacturing establishments alone exceeds annually the value of all the exports of all the exporting nations of the world, ourselves included, by more than one thousand millions of dollars.

Our production of minerals equals the output of our factories; our railroads have increased so tremendously that if put in one single line they would reach to the moon; our telegraph wires have increased by hundreds of thousands of miles; our telephone wires have reached an equal distance; our interstate commerce reaches proportions far in excess of all the exports and imports of all the exporting and importing nations in the world, ourselves included. For the past seven years we have grown richer at the rate of \$8,000,000 each day, holidays and Sundays included.

The great prosperity which has blessed this country has been for no single class, but has reached to the poorest paid toiler in the most crowded cities of the land. Our people constitute 86,000,000 of the best housed, best fed, best clothed people in the entire world, whose children have the amplest opportunity and the broadest outlook of any of the children in the whole round circle of this earth. We live on a higher plane of physical comfort; we pay the highest wages in the world, and the output in any line of human endeavor is higher in this country for individual workmen than anywhere else in the world. Al-

most all of our multiform enterprises are protected by a system of tariff laws so adjusted as to overcome the natural disadvantages against which otherwise we would be compelled to struggle, such as the lower plane of living and the lower wages of labor prevailing in other countries of the world. We protect the farmer and the artisan; we protect the mechanic and the manufacturer; we protect the output of the North, the East, the South and the West, and under the stimulus of this protection the creative energies of the American people have surprised and bewildered the world.

But there is one industry—one calling, not less noble than scores of others thus carefully protected—which seems to have been systematically neglected, if not wholly despised, and that is the carrying of our own goods to the markets of our neighbors. Ninety per cent of the people of this world who are possible customers of ours must be reached by means of the deep sea. We furnish 14 per cent of the export trade of the world—we carry less than 1½ per cent of it. We pay \$210,000,000 each year for freight and passenger service on the deep seas, of which ships bearing the American flag receive less than 10 per cent. In 1810 we carried 90 per cent of our foreign trade; in 1860, with 1,200,000 tonnage of registered vessels, we carried 65 per cent of our foreign trade; in this year of grace we have only nine sea-going steam-propelled vessels carrying our goods on the Atlantic, with a tonnage less than 90,000, and on the Pacific only seven steam-propelled vessels, with less than 50,000 tons.

One of the great problems confronting the manufacturers of the United States is how to extend profitably our trade in the yet undeveloped markets of the world.

No missionary is so efficient in the real development of trade as a proper means of transportation and communication.

What would we think of the sagacity of John Wanamaker if he hired Seigel & Cooper to deliver his goods for him? But that is just precisely what we are doing in the great markets of the world. Not a single ship carrying the American flag sails to South American seaports south of the Caribbean Sea, and only four small steamers there. We are the best customers of South America. We buy 30 per cent of what Brazil sells, and we sell Brazil less than 13 per cent of what she buys. We sell China 10 per cent of what she buys. We sell Africa less than 11 per cent of what she buys. We sell all South America less than 5 per cent of what she buys. Our best customers by sea are England and Germany and Japan, but England and Germany and Japan carry the goods. The markets where we must go for future growth, the so-called "undeveloped markets," are the markets whither we are sending no American vessels. The reasons for this condition of affairs are not far to seek. If two ships of equal capacity and equal intelligence in direction and administration leave a port, that ship will obtain the business which can render the same service for the least money, and the ship can render equal service for the least money which costs the least to build and the least to maintain and operate, and if two ships cost the same to build and the same to maintain and operate, then that ship can carry trade the cheapest which receives the most artificial assistance in the way of government subsidy or government retainer. The ships of the United States have to meet a handicap at each one of these three necessary steps. It costs more to build ships in the United States because it costs more to pay every man who labors on any part of the vessels of the United States, and it costs more to pay every man because our system of tariff has lifted up the whole plane of living and the entire wage scale to a point it has not reached in any other country in the world. We are committed to the policy of protection. Our entire industrial, commercial and social system is tuned up to it, and the American people will never consent to abandon it.

It costs from 25 per cent to 40 per cent more to build an American ship and equip it than in any other country. If it costs \$400,000 to build a ship in America, it would cost \$300,000 to build the same ship in England. It would cost 5 per cent, or \$20,000, to borrow the money in America and 3 per cent, or \$9,000, to borrow the money in England, and there you have

a handicap of \$11,000 a year, which must be overcome before the American boat can meet the English boat on even terms. It will cost each boat 5 per cent for depreciation. It will cost each boat 6 per cent for insurance; but for the ordinary repairs it will cost the English ship 2½ per cent, while it will cost the American ship 3½ per cent, and there is a handicap of \$4,000 more before the American ship can meet the English ship on equal terms.

It will cost 25 per cent more to feed the crew of an American ship than to feed the crew of an English ship. It costs from 25 per cent to 50 per cent more to pay the crew of an American ship than it does the crew of an English ship, and these two additional handicaps must be met and overcome before the two ships can compete on an equality of terms. If by greater ingenuity or the application of better machinery, or by the willingness of the American sailors to live on a lower plane than their brothers who work on the land, it would be possible to equalize these differences, there still remains the handicap of subsidies. All of our opponents and all of our commercial rivals subsidize; little Japan subsidizes over \$4,000,000 a year, and she is driving us off the Pacific. Germany subsidizes by giving over \$5,000,000 a year in cash and by giving rebates and favorable differentials on freights carried on government railroads to be exported on German ships. She subsidizes sufficiently to give the German vessels an advantage over their competitors. The Hamburg-American and the North German Lloyd lines have themselves, in the last eighteen years, increased more than two millions of tonnage in registered deep-sea vessels. One line of boats alone, the German-Hamburg-American, has paid in ten years \$51,000,000 in dividends, an average rate of over 7 per cent—126 per cent for their invested capital. This is a significant contrast to our own dwindling merchant fleet. France subsidizes \$9,000,000 a year.

England subsidizes not less than \$7,000,000 a year, and always she subsidizes when necessary to meet the competition of her rivals. Recently she presented to the Cunard Company two of the most superb steamships in the world—750 feet long, costing \$6,500,000 each. These boats were bestowed upon the Cunard people upon terms which substantially amounted to a gift; the Cunard Company has only to make an income over operating expenses. This is competition that no individual or corporation can successfully meet and overcome. The *Lusitania* and the *Mauretania*, 40,000 tons each, able to carry each 10,000 soldiers, fully equipped and armed, are living off our commerce. If either of them could be lifted on end, it would tower 250 feet higher than the Washington monument—living off our commerce in times of peace, to utterly destroy us in times of war, together with our commerce! These two boats alone can carry as many men and munitions of war as all of our Atlantic merchant vessels combined.

The most prejudiced mind must admit that this is an unnatural and an unhealthy condition of things, and the intelligent observer realizes at a glance that it is an entirely unnecessary condition of things; it is not necessary for us, who have succeeded in every single direction to which we have turned our attention, to be whipped by all the world, including the newest comers into the family of nations, on the high seas; our people have proven time and again their masterfulness and their natural superiority at sea.

This condition of things has come from our indifference and from our squeamishness, but as that great secretary of state, Thomas F. Bayard, so well said, "When foreign nations do not hesitate to pour wealth into the laps of our trade rivals, the time has come for us to cease to be squeamish."

Even as I speak we may get the news that Japan has purchased the Pacific Mail and taken five of our steamers off the Pacific. The great prizes of the future in trade are to come from deep-sea trade. We may feel indifferent, because just now, in spite of the tremendous activities of all our great enterprises everywhere, our capacity to consume has outstripped our capacity to produce, but this can not long endure. In the new South during the last ten years there has been an increase of 680 per cent in manufactures and in eighteen years an increase in the manufactures of textiles of 1090 per cent, and even at that we are only manufacturing less than 5,000,000 of the 13,000,000 bales of cotton we produce annually.

In Pittsburg and its environments is originated in iron and steel and their allied products a greater tonnage than originate in similar lines in all Germany or England. It has been found in the last five years almost impossible to get enough either raw material or finished products to feed the hungry maw of the expanding and extending American people. Nevertheless, the producing capacity is overtaking the consuming capacity, and when

it is overtaken, what then? Either we must shut our factories and turn out our employees or we must open up markets and dispose of our goods elsewhere on the face of the earth. We must imperatively then get our share of the undeveloped markets of the world.

It will then become a question of commercial life and health and of national safety, and no longer a theme for academic discussion. Under such circumstances as these we should no longer be content to trust to our trade rivals, who are running neck and neck with us, to obtain these very same undeveloped markets of the world, to carry our goods. We could not afford to take the risk; we could not afford to handicap ourselves in the slightest degree. People of our ingenuity, of our shrewdness, of our ability, should concentrate and bend the necessary effort to open up and hold these outlying markets for the relief of our home manufactures. Our rivals are subsidizing against us to the extent of \$30,000,000 per year. To equalize and overcome that rivalry and deadly stimulus it has never yet been estimated we would require over \$9,000,000 or \$10,000,000 per year. But even though it require \$50,000,000 per year to overcome and meet these subsidies against us we could well afford to do it.

You will remember there are two great American questions put to every proposition:

First—Is it right?

Second—Will it pay?

Both questions being answered in the affirmative, there usually is no further hesitation, and we embark upon the enterprise. Let me call your attention to the figures in the case. It will pay to subsidize even to the extent of \$50,000,000 per year, provided that by so doing we can secure all we now pay to our rivals for carrying our own goods. We now pay a total of, say \$210,000,000 a year for ocean freight and passengers. Of this, not to exceed 10 per cent is paid to American bottoms. Ten per cent is equal to \$21,000,000, so that our rivals receive \$189,000,000 of our own good money to build up and sustain their heavily subsidized merchant navies, rivaling us in times of peace and threatening us in times of war. Now, then, if a reversal of our present policy by an outlay of \$50,000,000 would result in a reversal of present conditions, giving us the 90 per cent of the traffic and leaving the 10 per cent to our rivals, we should bring into American possession a clean advance over what we now receive of \$68,000,000, or \$118,000,000 per year over and above the \$50,000,000 subsidy, and the energizing influence of this money would flow into American instead of rival channels.

But there is another aspect besides the commercial aspect which should give serious concern to all patriotic citizens, and that is this—even though it may be and doubtless is true that American capitalists can now and do own and maintain and conduct at a profit ships under foreign flags, and thus are even now securing a part of their earning power to the advantage of this country—we are confronted with the startling consideration that ships thus owned and controlled are manned by foreign crews, are operated under foreign flags, under the direction of foreign officers, and afford, therefore, no recruiting reserve for the American navy in times of war.

We have expended \$300,000,000 upon our navy; we have a splendid navy, superbly officered and superbly manned, magnificently equipped—a navy that can meet any other navy on equal terms; a navy that would give an account of itself under any circumstances—but we were unable to send that navy to the Pacific without hiring from our rivals ships for colliers and incidental services. When we had the Spanish war we were unable to get American ships to do the work, and this was right at home. When we wanted to send our navy to the Pacific we had to get four ships from Norway and twenty-four from England—the lowest American bid for carrying coal was \$8 per ton, and the foreign bid was \$5.85.

If, by any mischance or freak of fate, war were to be declared this moment between us and any other naval power, these twenty-eight ships which we have hired would become contraband of war and would be under obligations to incur either the risk of capture or make for the nearest neutral port. Our fleet, crippled for the want of coal, could go no further than the steaming radius of the battleships.

If such should come—which God forbid—and we were faced with the necessities of war, and if our navy and our army should undertake to meet ideal conditions and strike the swiftest possible blow with the greatest possible force, at the greatest possible distance from home, we should find ourselves utterly unable to meet conditions. We could not embark a single army division of 20,000 men, fully armed and fully equipped and prepared at any point, either on the Atlantic or Pacific coast.

We could not supply the auxiliary transports and hospital ships and other necessary ships for the navy alone, to say nothing of supplying ships to carry and provide for troops. We should be reduced, in spite of our glorious navy, to the ridiculous and dangerous, if not the fatal, absurdity of operating our fleet within sight of shore and waiting to receive the attack of the enemy at the enemy's own pleasure and in the enemy's own good way.

If we were to undertake to build for the nation's ownership an adequate supply of the right kind of ships and auxiliaries for the complete auxiliary navy, and a complete fleet to move not less than two army divisions at any given moment, the initial cost to the government would be not less than \$200,000,000, but the outlay of \$200,000,000 would mean an annual fixed charge of 3 per cent for interest, 5 per cent for maintenance—for iron ships only last twenty years—6 per cent for insurance, 3½ per cent for repairs, not less than 6 per cent for salaries and labor, 6 per cent for food and 6 per cent for fuel, or a grand total expenditure of \$71,000,000 in the way of fixed charges. If this were done, and the American people would meet such an outlay to maintain our national honor, we would have the difficulties and friction contingent upon finding the men and officers, and of controlling and disciplining them, and there would be the increased expense for mere operation, for so large a body of ships and men could not be kept in absolute stagnation in times of peace. They would have to be constantly occupied to keep them in proper condition for immediate response in times of peril.

To build and maintain and man all the extra ships needed to make the navy useful in its best degree, and the army valuable at the most essential point, would thus be the most expensive possible way to meet an end so desirable and so essential. Whereas, by a patriotic, intelligent and farsighted policy of proper distribution of subsidies, which is pursued by every one of our trade and naval rivals, we could build up, as once before we had, a peerless merchant marine which would carry our flag into every sea and our ships into every port, and be developing our foreign trade in times of peace and training men and officers for our protection in times of war.

AMERICAN SHIPPING.

By ALEXANDER R. SMITH.

Injurious Effects of Free Trade—Beneficial Effects of Protection.

Were a demonstration desired of the inefficiency of free trade, is it not to be found in the nearly two-thirds decline in our tonnage in the foreign trade during the last forty-six years? Were the benefits of protection, applied to our shipping, in need of a demonstration, what of the fact that our steam shipping in the foreign trade did not increase a ton during the twenty-four years preceding the enactment of the existing Frye subsidy act of 1891, while it has trebled under the operations of that act during the past sixteen years?

When the Democrats Rejected Discriminating Duties.

In 1894, when the Wilson-Gorman tariff bill was before the United States Senate, Senator Frye moved an amendment, the effect of which would have been to have restored the early-day policy of discriminating duties. The Democrats, then in control of each branch of Congress, and in a position to restore the old discriminating duty policy, if they believed in it, refused to take advantage of their opportunity, so forcibly brought to their attention by Senator Frye's proposed amendment.

Republican Indorsement and Repudiation of Discriminating Duties.

In 1896 the Republican National platform, and the Presidential candidate of the Republican party, both vehemently advocated the re-adoption of the early-day American policy of discriminating duties. The Dingley tariff bill of 1897 was so amended as to put the old discriminating duty policy into full effect, except where treaties protected imports against the collection of an extra or discriminating duty. The Elkins bill, to re-establish the discriminating duty policy, was then before

Congress, and it was incorporated in the Dingley tariff act as Section 22, with the provision eliminated that would have abrogated all treaties in conflict with the full and complete re-establishment of that policy. That the then attorney-general, and Board of General Appraisers, by opinion and decision, were able to nullify the effects of Section 22 of the existing tariff act, and that it has been nullified by executive fiat ever since its enactment, except for the brief period when scores of collections of the extra or discriminating duty were made by our collectors of customs along our northern border, before they were instructed to discontinue such collections, and before the decision of the Board of General Appraisers put a final stop to such collections, does not minimize the importance of that enactment.

What Enforcement of Existing Law Would Accomplish.

If Section 22 of the existing tariff act were being enforced, as was the intent of the Congress that enacted it, from twelve to fifteen millions of dollars more would be collected annually in custom duties than are now collected. During the past ten years from \$125,000,000 to \$150,000,000 additional customs revenue would have accrued to the United States. But this would have been the least important part of the effect of the full enforcement of that act. The most important result would have been to encourage an enormous construction of American vessels, which would, by this time, probably, have succeeded to the carrying of a vastly larger proportion of our foreign commerce than now. Probably one-half of our entire carrying would now, as a result of the enforcement of Section 22 of the existing tariff act, be conducted under the American flag, and with American-built vessels, commanded, officered, and manned by American citizens. With all laws wiped out that interfered with the collection of the extra or discriminating duties, and with only the treaties in operation to protect imports in foreign vessels from such collection, imports in British vessels from all parts of the world, save alone his Britannic majesty's possession in Europe would, for the past ten years, have been paying that extra or discriminating duty. This would impose a handicap upon British tonnage that would have given the carrying to our own—or to a white-washed tonnage of other nations, imports in whose vessels are protected by existing treaties.

American Ship Protection Through Tariff Instrumentality.

The advocacy of the policy of discriminating duties continues. Some Republicans still believe it to be the better plan, and not a few Democrats in and out of Congress, are advocating it, in all earnestness and sincerity. There is this to be said: It would protect our shipping in the foreign trade in the same way, and by the same instrumentality (the tariff) that we protect all of our other industries that are subject to a foreign competition. That is the way we protected our shipping from 1789 until 1815-1828-1850. And during that period, by levying a higher duty on imports in foreign vessels, and a higher tonnage duty on foreign vessels than we levied upon imports in American vessels, or than we assessed upon American tonnage, respectively, American ships carried an average of over 80 per cent of our foreign commerce. To be sure, we have, since that time, put into force from thirty to forty treaties with as many different nations, binding ourselves not to discriminate against foreign ships or the imports therein; or, by act of Congress, we had stopped such discriminations until the enactment of Section 22 of the existing tariff act, which the executive branch of the govern-

ment has seen fit to continuously nullify since its enactment without giving the Federal courts, as in fairness they should have been given, an opportunity to judicially determine the intent and purpose of Congress in the enactment of that section.

How Other Products Would Suffer if Denied Tariff Protection.

Producers of rice, upon the imports of which our tariff now levies a duty of over 100 per cent, might be able to realize the plight in which American shipping in the foreign trade is placed, in competition with foreign shipping, were they told that treaties with foreign governments made it impossible for our government to protect them in the production of rice through the instrumentality of the tariff. Would they then ask for protection by bounty, or would they prefer to see their industry die? Or, the producers of sugar in the United States, upon the imports of which the duty, and thereby the protection, exceeds 80 per cent, might be able to realize how profitable to them their sugar production would be if they were to be barred from any protection against foreign sugar, because our government had seen fit to exchange treaties with other nations binding itself not to use the instrumentality of the tariff for the purpose of discrimination against foreign sugar. Doubtless a large majority of our producers of rice and sugar would be horrified, and bitterly opposed to any protection by subsidies or bounties, for American shipping in the foreign trade; doubtless, too, they would weigh the matter very carefully indeed, if it should be suggested to them that, by freeing our shipping from the entanglements of treaties and laws, the instrumentality of that tariff might be again invoked for the protection of our shipping in the foreign trade. Certainly American shipping in the foreign trade is seriously handicapped when through treaties it is denied the means by which every other American industry that is subject to foreign competition is protected against that competition—by discrimination against the foreign product!

The Suggestion of Bounties on Exports.

Reference should also be made to still another form or method by which our shipping in the foreign trade may be protected—bounties on exports carried in American vessels. The constitution of the United States forbids the collection of duties on exports from the United States, but there is nothing in the constitution to forbid the payment of bounties upon such exports, if carried in American vessels. Were such a policy adopted, it would be necessary to first abrogate practically all of the treaties that now interfere with the collection of extra or discrimination duties on imports in foreign vessels. In 1895 Mr. David Lubin of Sacramento, California, came into prominence through his advocacy of a bounty on exports of agricultural staples, which for years he pressed upon the attention of the farmers' organizations all over the United States. He contended that, in the matter of these agricultural staples, which in large quantities we exported, even if our tariff did provide for a duty upon competing foreign agricultural products, such protection was fallacious and non-existent. He claimed that the prices of our great agricultural staples were fixed in the dearest market—the foreign markets, to which our surpluses were exported, and that the price thus fixed abroad, generally in England, was the price received by the American producers of such exports, less the cost of carrying such staples from the place of their production to their foreign markets. Mr. Lubin did not suggest that the bounties be paid only on such exports as were shipped in American vessels, but the

vessel-owning and building interests took up the matter, and, for a time, advocated such a measure, as at once protective of our large agricultural and our comparatively small shipping interests. It was believed that if these two interests should combine in a demand for such protection, whereby the protection afforded the one would also afford protection to the other interest, Congress would be compelled to heed it. While the matter was vigorously discussed all through the year 1895, it was rejected by the economic and political quidnuncs of both the great political parties. Republicans asserted that it was the extreme of paternalism, a characterization which they denied was properly applicable to our present protective tariff policy, while Democrats, especially free traders, were vehement in their assertion that it was the complete and just corollary of the protection afforded by our tariff, and, in ironical and satirical pronouncements they urged its adoption upon the Republicans, as a means, they asserted, by which the complete fallacy of the protective principle would be fully demonstrated. A bill measurably along such lines, drawn by Senator Cannon of Utah, was voted upon in the United States Senate in 1896, but it was overwhelmingly defeated. It should be said that, beginning in the reign of William and Mary, in 1688, England adopted a policy along similar lines, that was in force for a great many years. A bounty was paid upon exports of corn, when that commodity was carried in English vessels, provided that the master and three-fourths of the crews of such vessels were English subjects. The purpose of the bounty was primarily to protect the farmers of England, and incidentally to protect the shipping. That it was retained for so long a period upon the British statutes, would seem to indicate that its operation was beneficial to both of the interests that it sought to protect. Seemingly, however, it is a method that it would be difficult to induce the American people to adopt. When Mr. Lubin was advocating it our staple agricultural products were selling at comparatively ruinously low prices, and relief for our farming population against great hardships was being sought. More latterly our farmers have been so prosperous that such a suggestion would, seemingly, possess little interest for or indorsement by them. The stagnation and decline of our shipping in the foreign trade have been so continuous, however, that the agitation for remedial measures has been persistent and increasingly insistent.

How We Have Subsidized Our Ships in the Past.

The agitation for subsidies and bounties has been more prolonged and far more general, than for any other policy that has been advocated of recent years. Reference has already been made to the abridged act of March 3, 1891, and to the original bill out of which that act was carved. It should be known, however, that subsidies to mail lines were provided first in 1845, and in 1847, under which several lines of American steamships were operated for about ten years in our foreign trade, preceding the civil war. Subsequent to the close of the war one or two lines were subsidized by special act, but they were so limited in their operations as to prove unavailing in aiding our steam shipping. The extent to which our steam shipping has increased since the enactment of the Frye subsidy bill of 1891 has been shown.

Recent Efforts for a More General Subsidy Act.

Although pledged to the restoration of the discriminating duty policy, both by the platform utterances of the Republican party, and by the indorsement of that declaration by President McKinley, preceding the election of 1896, Republicans repudiated those pledges after their election. Under the leadership of Senator Frye, conspicuously and

actively aided by the late Senator Hanna, a prolonged and most earnest effort, beginning in 1898, and ending in 1902-03, was made to establish an all-round and effective plan of subsidies to American shipping in the foreign trade. The measures that were successively proposed were bitterly, and most unjustly, attacked, largely on the ground that they provided more generous compensation for the swift transatlantic flyers, that carried little or no cargo, than was afforded to the slower cargo-carrying vessels. The fact seems to have been generally overlooked that there was no complaint as to the inadequacy of the compensation those bills provided for the slow or medium speed cargo carriers, while it was always asserted by those most competent to pronounce judgment upon the provision of those bills, that the compensation provided for the swift steamships was considerably below the extra cost of construction and operation to which they would be subject in competition with foreign steamships in the same trade.

PROGRESS NOTES OF THE PANAMA CANAL.

The following is the full text of the act passed at the recent session of Congress, and approved by the President, relating to the use, control and ownership of lands in the canal zone:

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled:

accorded to actual occupants of lands in good faith.

Sec. 2. That no portion of the lands of the United States within the canal zone shall be leased hereunder unless it shall first be made to appear, by a statement or plat filed by the Isthmian Canal Commission with the collector of revenues of the canal zone, that it is not contemplated to use such lands in the work of canal construction or to set the same aside as a townsite; and all leases shall be made subject to the provision that if at any time it shall become necessary, notwithstanding, for the United States to occupy or use any portion of the leased lands, it shall have the right to do so without further compensation to the lessee than for the reasonable value of the necessary improvements made upon said tracts by the lessee, the same to be determined by the courts of the canal zone.

Sec. 3. That all leases of lands hereunder shall reserve to the United States all minerals, oil and gas rights in the lands leased.

Sec. 4. That the President may, in his discretion, require a land survey to be made of the canal zone.

Sec. 5. That the powers conferred upon the President under this act may be exercised by him through the Isthmian Canal Commission or in such other manner as he may designate.

Approved February 27, 1909.

A new quarantine station at Culebra Island was opened on March 1, when a case of yellow fever brought from



A Shovel in Bas Obispo Cut Loading Lumberwood Flat Cars.

That the President is hereby authorized to grant leases of the public lands in the canal zone, Isthmus of Panama, for such period, not exceeding twenty-five years, and upon such terms and conditions as he may deem advisable. No lease, however, shall be granted for a tract of land in excess of 50 hectares (1 hectare equals 2.471 acres), nor to any person who shall not have first established, by affidavit and by such other proof as may be required, that such person is the head of a family or over the age of 21 years, and that the application for a lease is made in good faith for the purposes of actual settlement and cultivation, and not for the benefit of any other person whatsoever, and that such person will faithfully comply with all the requirements of law as to settlement, residence and cultivation. In granting such leases preference shall be

Guayaquil was placed in one of the isolation pavilions. Passengers are now detained at this station, the old station at La Boca, known as "La Folie Duigler," having been turned over to the Quartermaster's Department. Ships coming from ports against which quarantine has been declared are not allowed to land their passengers until the prescribed period has elapsed. Passengers are transferred in a tug to Culebra Island. Visitors are not allowed on the island except by special permission. While anyone is detained in quarantine a yellow flag flies over the island as an indication that no one, excepting those on official business, will be allowed to land.

The Panama Canal will have a most important bearing upon the trade between the eastern and far western sec-

tions of our country and will greatly increase the facilities for transportation between the eastern and western seaboard, and may possibly revolutionize the transcontinental rates with respect to bulky merchandise. It will also have a most beneficial effect to increase the trade between the eastern seaboard of the United States and the west coast of South America, and, indeed, with some of the important ports of the east coast of South America reached by rail from the west coast. Work on the canal is making most satisfactory progress. The type of canal as a lock canal was fixed by Congress after a full consideration of the conflicting reports of the majority and minority of the consulting board and after the recommendation of the War Department and the executive upon those reports. Recent suggestions that something had occurred on the isthmus to make the lock type of canal less feasible than it was supposed to be when the reports were made and the policy determined on, led to a visit to the isthmus of a board of competent engineers to examine the Gatun dam and locks, which are the key of the lock type. The report of that board shows that nothing had occurred in the nature of newly revealed evidence which should change the views once formed in the original discussion. The construction will go on under a most effective organization controlled by Colonel Goethals and his fellow army engineers associated with him, and will certainly be completed early in the next administration, if not before.

Some type of canal must be constructed. The lock type has been selected. We are all in favor of having it built as promptly as possible. We must not now, therefore, keep up a fire in the rear of the agents whom we have authorized to do our work on the isthmus. We must hold up their hands, and, speaking for the incoming administration, I will say that I propose to devote all the energy possible and under my control to the pushing of this work on the plans which have been adopted and to stand behind the men who are doing faithful, hard work to bring about the early completion of this the greatest constructive enterprise of modern times.—From Mr. Taft's inaugural address.

* * *

Expenditures for canal work to December are as follows: Civil administration, \$2,567,315.81; sanitation, \$7,890,356.84; construction and engineering, \$39,098,789.69; municipal improvements, \$6,213,237.76; plant account, \$34,895,695.91—making a total of \$90,665,396.01.

* * *

Reorganization of the various departments and divisions in the zone was begun in July, 1908, resulting in material economies and more concentrated organization; while some of the departments and divisions show an increase by reorganization; the saving amounts to 6.53 per cent, or a total, by combining the gold and silver rolls, of \$712,208.40 per annum.

* * *

Following is the text of the resolution adopted by the United States Senate at the time the new treaty with the republic of Panama was ratified:

Resolved (two-thirds of the senators present concurring therein), That the Senate advise and consent to the ratification of a treaty between the United States and the republic of Panama, relating to the Panama Canal, signed on January 9, 1909.

Resolved, As a part of this ratification, that the United States approves the treaty between the United States and Panama, with the understanding that, so far as the United States is concerned, no question shall be submitted to

arbitration herein provided for which in any way affects the vital interests of the United States in the construction, operation, maintenance, sanitation and protection of the Panama Canal, and that this understanding will be mentioned in the ratifications of the treaty, and will, in effect, form part of the treaty.

* * *

The item of \$7,890,356.84 expended for sanitation in the canal zone up to December 31, 1908, when casually noted, would appear a vast sum of money to expend for this purpose, but when present conditions are compared with those under which French operations were conducted the amount shrinks into insignificance compared with the magnitude of the canal enterprise and the health report of Chief Sanitary Officer W. C. Gorgas for the month of February, 1908, namely:

The lowest death rate among employees on the isthmus for any February since American occupation was reached this year, which amounted to 10.98 per thousand; the rate in 1906 was 43.00 per thousand. Considering the total population on the isthmus, the death rate decreased from 40.20 per thousand in February, 1905, to 18.59 per thousand in February, 1909.

There has been a large decrease in the amount of sickness among employees during February as compared with January. During January we had sick every day among our employees 1,116 men; during February this average was reduced to 951.

During the month of January we admitted to our hospitals 1,258 cases of malaria among employees; during February only 852.

During the month no case of yellow fever, plague or smallpox occurred on the isthmus.

The general health of the isthmus I consider excellent, and the health of our laboring force is about as good as it would be at home.

PERSONAL.

Capt. G. L. Anderson, who has been in the service of the Pacific Coast Steamship Company for forty years, will be retired. Capt. Anderson will be pensioned by the company, which he has served so faithfully, and well, and by which he is highly esteemed for the service he has rendered.

John W. Wynne, convicted of murder, has appealed to the U. S. Supreme Court for a new trial. Wynne was convicted of the murder of Third Engineer James McKinnon of the S. S. Rosecrans in this port fifteen months ago.

Dr. W. C. Hobdy of the Marine Hospital service in this port, with headquarters at Angel Island, has been confined in his home for the past two weeks with an attack of grip.

Notes.

Designs have been submitted by the Ministry of Marine of Russia to the Council of Marine State Defense. The plans are of battleships 600 feet long, with a speed of 22 knots and carrying twelve 12-inch guns. A ship of these dimensions would be impracticable, as machinery of tremendous power would be necessary. The estimated horsepower required would be between 40,000 and 50,000 as compared with the Dreadnought's 23,000, and the total cost of the battleships considerably over \$15,000,000 each.

HAWAIIAN NOTES.

Honolulu.—The British steamer Kish was forced to put into Honolulu for repairs to her machinery, which was completely disabled. The Kish was on her way from Victoria, B. C., to Saku bar.

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With a wealth of raw material the United States has developed the greatest industrial system on earth. There can be no surprise in this fact when we consider our many opportunities for trading, the foundation upon which this great industrial system was built. Coincident with the increase of our manufacturing so has our commerce declined, and the more we have tried to regulate commerce the more are we disposed to allow commerce to regulate itself. Granted that we have the greatest workshop in the world, and that our products have increased from \$9,000,000,000 in 1900 to \$15,500,000,000 in 1908, that 7,000,000 of our population are employed in the latter production, and that 30,000,000 depend upon subsistence from this product. But what of the output of this product, if it continues to increase at a minimum rate? Our present population is unable to consume all that we produce. Today we are even more dependent upon relations with foreign countries than ever before. Does it look reasonable to assume that these relations will develop by employing foreign agents to represent American goods abroad or that these goods shall be transported by a foreign carrier? If so, manufacturing in the United States is passing through a very unhealthy stimulus, and Yankee pride in highly developed native industries is a doubtful bond of our future stability and progress.

Obviously the United States is increasing the opportunities for foreign trade. Other and older countries are doing likewise, and in spite of or because of American restrictions on foreign goods are steadily and systematically selling their own goods in other markets, and making their profit thereon, from the United States to the extent of millions of dollars every year by a delivery system with which the United States could, but thoughtlessly or otherwise has no desire to compete.

Some influence exists which blinds American statesmen to the fact that many foreign nations have established the balance between American industry and foreign merchant marines; that the immense chain of development in manufacturing in which the United States leads contains a weakened link; that the energies of the American people was being devoted to internal develop-

ment and the building of railroads. These conditions stimulated the desire of foreign nations to the upbuilding of a merchant marine.

The greater the activity in American labor, the greater the development of the foreign merchant marine; and while the United States has risen to manufacturing supremacy, Japan has entered the group of world powers, other nations have developed their merchant marine at the expense of American industry, and the foreign trade of the United States handicapped to a greater extent than we are willing to admit.

In 1906 the tonnage of vessels passing through St. Mary's Falls canal, connecting Lake Superior with Lake Huron, was three times greater than the tonnage passing through the Suez canal, and over seven times greater than that of the Kaiser Wilhelm canal. More remarkable in view of the fact that the St. Mary's canal is only open to traffic about eight months in the year, while the others are open twelve. The increasing tonnage passing through St. Mary's canal is noteworthy from the following information: In 1880, 1,244,279 tons passed through; in 1889, 7,516,022 tons; in 1906, 41,270,862 tons, or 3,217.3 per cent greater than in 1880 and 449.2 per cent greater than in 1889.

WRECK OF THE LINER INDIANA.

Frontispiece.

The Pacific Mail Steamship Company's Liner Indiana Goes Ashore at Point Tosco.

The Indiana left this port early in February for Ancon, Panama, and upon discharging her cargo received about 1,200 tons of freight, consisting of iron, steel and hardware from New York by way of the Isthmus, consigned to San Francisco. Leaving Mazatlan on Thursday, the 1st instant, three days late, with 2,500 tons of freight and forty passengers, the Indiana reached Point Tosco, the southern extremity of Santa Margarita Island, 22 miles south of the entrance to Magdalena Bay, at 7 a. m. Saturday morning. The strong currents existing at this point, so well known to navigators on the southern coast, aided by a dense fog prevailing at the time, carried the ship out of her course and upon the treacherous rocks of Tosco. The hold began to fill at once, and shortly the engine and fire rooms were flooded. Distress signals were immediately displayed, and Third Officer James Walsh was sent with a boat's crew to row 36 miles to Magdalena Bay. He left at 8 a. m. The rockets, however, attracted the attention of Admiral Swinburne's flagship, the cruiser West Virginia. Unable to sail close inshore, the West Virginia sent a wireless summons across Santa Margarita Island. The message was received by Captain Bensory of the cruiser Albany in Magdalena Bay, and accompanied by the tugs Active and Navajo reached the unfortunate vessel at 9 o'clock Saturday evening, in time to take off the passengers, Purser Robert K. Palache, the mails, baggage, ship's records and bullion and gold dust valued at \$53,000.

Captain J. F. Robinson and the crew of sixty men remained aboard the wreck to care for such property as may be saved. As the wrecked vessel is in no immediate danger of going to pieces and the tugs are standing by, no anxiety is felt for the safety of Captain Robinson and the crew.

H. A. Frye, acting general manager of the Pacific Mail Company in this city, displayed his executive ability in taking every possible precaution for the safety and

care of the passengers, and possible salvage from the wreck, from the meager information received by Mr. Frye early Sunday morning. Orders were sent to Acapulco, Mexico, to the steamer City of Sidney to proceed at once to Point Tosco and render all assistance possible. The steamer San Juan left this port on schedule time, with orders to go direct to Point Tosco. On board the San Juan is Captain A. F. Pillsbury, surveyor for the San Francisco Board of Underwriters. Upon the report of Captain Pillsbury will depend further action of the Mail Company and the underwriters regarding the wreck.

A wireless message was sent by the West Virginia to the cruiser California to Magdalena Bay to be ready to leave for the scene of the wreck on short notice in case further assistance would be required. The latter was unnecessary, as the Albany, assisted by the tugs, had no difficulty in transferring the passengers and property. The Albany left directly for Magdalena Bay and passed the rescued passengers over to the cruiser California, which in turn sailed immediately for San Francisco, arriving at this port at 2 o'clock on Wednesday afternoon, twenty-four hours in advance of the scheduled arrival of the Indiana.

Every passenger interviewed was profuse in his praise of Captain Robinson, and while journeying up the coast to this port organized themselves and delegated Carlos E. Mordaunt, a wealthy coffee planter of the southern coast, to draft a set of resolutions commending every act of Captain Robinson during the voyage and wreck, expressing their confidence in his ability as a navigator and further qualifying their sympathy with the captain by commenting upon the stability of the Indiana, the strong currents and foggy weather. The resolutions were signed by all the passengers.

Each passenger appeared to view his experience of the wreck and subsequent voyage rather as a pleasant adventure. Breakfast was served on the Indiana within one hour after striking the rocks, the passengers amusing themselves during the day hours of Saturday by fishing over the sides, and with more than ordinary luck. Preparations had been made to transfer the passengers to the shore, where tents had been erected, but the arrival of the cruiser, aided by her searchlights and a comparatively smooth sea, made it possible to begin the work of rescue at once. However, many of the passengers remained on board the Indiana until Sunday morning. The women's trip on the war vessel to this port was enjoyed to its fullest extent.

The steamer Aztec will take the place of the Indiana temporarily for freight only from Acapulco south, commencing April 25, and on May 21 will permanently make the complete run.

The Indiana is an iron steamship of 3,335 tons gross and was built by the Cramps in Philadelphia in 1873 and was at one time in the United States army transport service. Reverting to the Pacific Mail Company, she was practically rebuilt a year ago, at a cost of \$75,000. The vessel had a length of 343 feet, breadth of 43 feet and depth of 25 feet; was valued at \$200,000, with a cargo estimated at \$400,000. About one-half of the freight in tonnage, or 25 per cent in valuation, is subject to total destruction by water. Little hopes of saving the wrecked vessel are entertained by Captain Cottman of the California and Purser Palache of the Indiana; unless immediate action and first-class wrecking appliances are available, according to these gentlemen, the vessel will undoubtedly be a total loss.

SHIPBUILDING NOTES.

Union Iron Works.

Repairs have been completed on the S. S. Edward Sewell.

The S. S. Roma at works for miscellaneous engine repairs.

The S. S. Missourian on Hunters Point drydock for cleaning and painting.

Installing new wheel on the S. S. Bandon.

S. S. Sver on floating drydock for cleaning and painting.

Gasoline schooner receiving a general overhauling, including new tail shaft.

General Frisbie on drydock for cleaning and painting.

S. S. Porter left works last Saturday, after receiving general overhauling.

United Engineering Works.

Overhauling the steam whaler Tyee Jr., boring out cylinders and relining engines.

Repairs to bottom and new tail shaft installed on the S. S. J. P. Haller.

S. S. Marshland having new tail shaft installed.

S. S. St. Helens on dock for cleaning and painting.

Moore & Scott Iron Works, which company recently purchased the shipbuilding plant, drydock and business of W. A. Boole & Son, located on Oakland Creek, took possession of the plant April 1 and are now operating it.

At the present time there are but few men employed at the Oakland site, but the new owners expect, in a short time, to have a large force of men steadily engaged.

Their first order, taken last week, was a steel lighter 53 feet long, 17 feet beam by 6 feet deep, to be used for freighting purposes on the South American coast.

George W. Kneass.

Building 28-foot speed launch, equipped with 16-horsepower Corson gas engine, for Jacob & Malcolm, commission merchants of this city.

Gorham Engineering Company.

Built 3-horsepower gas engine for Henry Goosen, to be installed in a 20-foot yawl.

H. Anderson.

A new gasoline freight and tow boat is to be built by H. Anderson of South San Francisco for the George E. Dow Pumping Engine Company. The launch was designed by D. W. and R. Z. Dickie. She is 56 feet long, 15 feet beam and 5 feet deep and will be driven by a 50-horsepower 3-cylinder Doak engine.

William Cryer.

Building for P. Nelson & Co., Alaska salmon fishermen, a tug to be used in towing barges in Alaska. The tug is 48 feet long, 12½ feet beam, 5 feet deep, equipped with two 30-horsepower 3-cylinder Imperial gas engines.

Sonoma Land Company is having a launch 28 feet over all, 9 feet beam, 4 feet deep, fitted with a 12-horsepower Standard gas engine. The launch is to be used as a dredger tender and for light towing.

McCormick Brothers are having a 40-foot launch built with refrigerator attachment, to be used as a butcher boat. The launch will be equipped with a 40-horsepower 4-cylinder Atlas engine.

A modern principle of education: is if you are in doubt upon a subject the next best thing to know is where to look for definite information; the proper application of this principle in business transactions is an indication of progress, and must bring about the same degree of success in the latter case as in the former, and has made the name of Weeks, Emerson & Howe, San Francisco, so well identified with the Ship Chandlery business on the Pacific Coast.

PLEASURE CRAFT



The Caddie

THE LAUNCH CADDIE.

The San Rafael Development Company's shallow draft passenger launch Caddie has gone into service on San Rafael creek and proved herself to be well fitted for the service for which she was built.

She was designed by D. W. & R. Z. Dickie and built by H. Anderson of South San Francisco, and has greatly pleased her owners. Her hull is of the following dimensions:

Length over all.....	40 feet
Length on waterline from fore of stern.....	36 feet
Breadth moulded on frames.....	10 feet 9½ inches
Breadth moulded over planking.....	11 feet
Crown of beam.....	3 inches in 11 feet
Draft forward at forefoot.....	
Draft aft at rudder bracket.....	23 inches
Freeboard with engineer fuel and equipment in salt water about.....	22 inches
Sheer forward.....	20 inches
Sheer aft.....	4 inches
Length of cockpit about.....	30 feet

The hull is of a bent frame plank construction with a transom stern and a light canopy over the cockpit to shade the passengers.

The engine is of two cylinder 16 brake H. P. Corson, which developed 19½ brake H. P. on the test and on her fuel consumption of 1-10 of a gallon of No. 1 distillage per H. P. per hour on trial a speed of 8½ miles per hour was obtained, and she proved herself to be an able sea-boat. She was called the Caddie owing to her peculiar vocation of carrying passengers from San Rafael to the golf links, a distance of about one and one-half miles down San Rafael creek. She is now being used to transport the pile driver, and dredger crews which are at work improving the creek. Fred G. Lewis, who is in charge of the San Rafael Development Company's work, is operating the Caddie, and while on her maiden schedule voyage to San Rafael from the links a dredger swung around a two-ton bucket of mud and carried away the canopy. Fortunately nobody was hurt, although fourteen men were passengers and each became a human stansion and performed that duty the rest of the trip, taking the canopy ashore with them on arrival at San Rafael.

While we on the mainland anxiously await the opening of our all too short yachting season, our more fortunate brothers in the Hawaiian Islands are enjoying a perpetual season of that royal sport.

The Hawaii Yacht Club, situated on the beautiful and much talked of Pearl Harbor, has a membership equal to any similar club on the Pacific Coast, and is open three hundred and sixty-five days in the year. The yachts are always in commission, and are only laid up long enough to be cleaned up and have the necessary repairs done.

Small boat sailing is extremely popular among the Island yachtsmen, and there are many exciting races between the "skip-jacks" and canoes which are largely in favor.

Motor-boating is beginning to take its place in the Islands, and there are several fine boats of this type enrolled in the Hawaii Yacht Club.

The Hawaiian Islands form an ideal and unlimited cruising ground and there are innumerable cozy harbors, where the yachtsman may drop his hook with perfect confidence that his boat is safe against even the hardest blow, and where he may enjoy the finest fishing and swimming.

It is seldom that a calm is encountered, and outside of an occasional "kona," which corresponds to our "southeaster," nasty weather is practically an unknown quantity. Hawaii is the land of the trade winds, so dear to the sailor's heart, and one starting on a cruise can safely figure when he is to get back, a very necessary bit of figuring to the average yachtsman.

The two trans-Pacific races held under the auspices of the Hawaii Yacht Club have awakened a great deal of enthusiasm in the Islands, and although the Hawaiian boys have not met with success in either of their entries they are still in the game, and it will be no great surprise in yachting circles if they carry off the cup in the next race.

Last Sunday the time honored ceremonial of the "Bridge Opening" took place at Tiburon and the majority of the Corinthian fleet and several arks and yachts

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belonging to other clubs about the bay came out of their winter quarters in the lagoon. Owing to a small run in, the yachts Genesta, Harpoon and Clara were left stranded on the mud flats, and in spite of the heroic work of John Norby, the Corinthian Club steward, with his launch, were forced to remain in the lagoon much to the displeasure of their respective owners. They will probably be hauled off the mud some time next week by one of Henry Peterson's big launches.



Truant—Ex-Com. J. Pew

Abe Meyer's yacht Edna, which was sailed last season under Corinthian colors by Doc Davis, has been purchased by Alameda parties and will fly the colors of

the Aeolian Yacht Club.

Talking of Santa Cruz, why don't more of you launch men get in and make the trip? The yachtsmen have set the pace and now it is up to you fellows to get in and show what sort of sailors you are. There are enough large cruisers on the bay to put up a creditable outside race and you will find that the Santa Cruz bunch won't pass up anything in the welcome they give you.

We are sorry to learn that the new schooner yacht Marian is up for sale and will probably be bought by outsiders. Such a boat would act as a stimulus to yachting about the bay, and we need more like her to put the game on its proper footing.

Tom Jennings' Speedwell has been bought by members of the Aeolian Yacht Club, which club, by the way, is no dead one in the yachting game, and it is rumored that Tom will build a large boat with auxiliary power.

Last Sunday at Tiburon we noticed a sloop rigged craft which looked as though it might be a cross between a mowing machine and a pair of green shutters. This is the sort of thing that knocks yachting. A bunch full of "water front steam" generally goes out in such a boat, capsizes, two or three are drowned, and next morning the papers come out with an account of "Another Yacht Disaster."



Meteor—Capt. W. Hogg

As a matter of fact it is seldom, if ever, that we hear of a real yacht capsizing, and the sooner the general public gets this into their head the better it will be for the game.

Pete Swanson is building a twenty-five foot sloop for Corte Madera parties. She is to be of the shoal draft center board type, and is expected to be very fast.

The Golden Gate Yacht Club, in spite of reports to the contrary, is still doing business at the old stand, and, judging from the number of new entries in the fleet, is stronger than ever this year.

George Briggs brought his twenty-five foot cruising motorboat down from Green Brae last Sunday to undergo minor repairs. Mr. Briggs is an ardent motorboat enthusiast and intends to put in much time this summer in cruising. He has a trip to Santa Cruz planned for the near future, and has his beer ordered and the crew signed up.

YACHTING.

The United States Census Bulletin gives the following statistics of yachting in the United States up to and including December, 1906:

The total number of yachts reported was 3770; 2176 of which were steam yachts with a gross tonnage of 82,300, and valued at \$24,280,800; 1594 were sail yachts with a gross tonnage of 24,155, valued at \$4,170,000.

The average tonnage of the 3770 vessels was 28 gross tons per vessel, that of the steam yachts being 38 tons, and of the sail yachts 15 tons; the average value of each vessel was \$7,547, the steam vessels averaging \$11,150 and sail \$2,616. Gasoline and electric launches are included among the steam yachts, representing 57.7 per cent of the total number of vessels in this class.

Machine propelled yachts are the only kind reported upon on the Mississippi river, and elsewhere, except the Pacific Coast, where sail yachts predominate.

Ninety-one and two-tenths per cent of the yachts are owned by private individuals; 6.5 per cent by firms, 1.7 per cent by corporations, and 0.6 per cent by miscellaneous organizations.

NOTES.

The American Hawaiian Steamship Co. has resumed service on the old route connecting Puget Sound and Honolulu, with New York, and Philadelphia, by way of the Straits of Magellan. The steamers Alaskan and Arizonian have been detailed on this run. The change was made to relieve the congested condition of the company's Tehuantepec Isthmian route. The Alaskan and Arizonian will, on their return from the eastern ports, carry a cargo of coal for the Pacific fleet.

The sister ships Fremont and Shawmut have arrived in New York, completing their 15,000-mile voyage from Seattle, in sixty-two days.

The vessels were purchased recently by the Isthmian Canal Commission for service between New York and Colon.

The Pacific Coast Steamship Company have placed the S. S. State of California out of commission indefinitely. With the revival of the spring trade the State of California would be too small to handle it; and the Governor and President were secured for her place.

Henry Lund & Co. have chartered on time the S. S. Katanga, of the Weir line, at the rate of \$4500 a month. The Katanga will be placed on the run between North Pacific Coast and Mexican ports.

Vladivostok will no longer be a free port, as a heavy duty is now being imposed on goods from foreign ports;

many American products, however, are retained on the free list.

The Pacific Coast Steamship Company has decided to abandon Santa Cruz as a port of call for their freight steamers.

The first French ship to be chartered to load grain on the Coast is the bark Bayard. The bark is to load coal for this port and grain from here to Europe, the rate for the two voyages being 33 shillings and 3 pence. The coal cargo will be on a basis of 12 shillings 6 pence, and her grain freight 20 shillings and 9 pence, this being 3 shillings below the established union rate.

The three British ships in the harbor are for the season under charter to take cargoes at the union rate of 25 shillings.

The apprehensions felt for the little steamer Requa were entirely unfounded, as the saucy liner arrived in the bay in the best of condition. The Requa was built on the Columbia River and will enter the passenger service between Sacramento to Rio Vista, under the command of Captain Fay. The tug made the run from Coos Bay in 37 hours. She is 98 feet long, 17 feet beam, and equipped with a 200 horse-power engine, and is capable of making a speed of 15 miles an hour against the tide. The Requa is the only river craft in the passenger service equipped with a propeller.

The revenue cutter Tahoma, that will be detailed to Port Townsend, Wash., has been completed.

SOUTHERN NOTES.

Avalon.—The Freeholders' Improvement Association, working in conjunction with the property owners and the Bannings Co., have contrived to close Avalon, excluding all transportation companies except the Bannings and Wilmington Transportation Companies.

In the agreement it is stipulated that if the Bannings Companies do not complete certain improvements, on the petition of ten property owners, the arrangement can be made void. Yachting and pleasure parties will be allowed to land, but the Nelson Navigation Co., the Bannings' only competitor, will be excluded.

The construction of the 350 ft. pier will be started at once.

Application has been made to the War Department, by the Bannings Co., for permission to construct a 350 ft. wharf at this port.

Magdalena.—The British steamer Strathdee was rammed by the U. S. tug Fortune while discharging coal, and was badly damaged amidships. The officers of the tug were responsible, and the British vessel will proceed to Mare Island to be repaired at the government's expense, as soon as her coal is discharged. The Strathdee is the first coal-tender to bring coal from Newport News for the Pacific fleet.

The vessels comprising the Pacific fleet stationed at Magdalena are the cruisers West Virginia, Pennsylvania, Colorado, Tennessee, California, and South Dakota; the gunboats Yorktown, and Albany; the supply ship Arctusa, and the torpedo boats Whipple, Lawrence, Farragut, Davis, Rowen, Paul Jones, Hull, Truxton, Stewart, Perry Hopkins, and Preble.

Valparaiso.—The British steamer Cumbal, which stranded on the coast near this port, will be floated on a spring tide in about a week.

San Pedro.—Captain W. G. Ross, of the Treasury Department, commander of the revenue cutter service, and Captain C. A. McAllister, chief engineer of the revenue cutter service, have decided, after investigating the needs of the harbor, to recommend that a revenue cutter be detailed to this vicinity, with headquarters at this port.

NORTHERN COAST.

Seattle.—A wireless station will be established at Juneau, Alaska, the equipment being shipped on the S. S. Portland, which sails Monday for southeastern and westward Alaskan ports.

The fireboat for this port, building at Richmond Beach, will be completed about May 15th.

The barkentine Jane L. Stanford has been chartered to carry lumber from Puget Sound to Valparaiso at 38s. 9d. The barkentine T. P. Emigh will carry to Mazatlan at the same quotation.

The Norwegian steamer Euphrosyne and the schooner S. T. Alexander of Puget Sound, have been chartered to carry lumber. The former loading at British Columbia for Delagoa Bay, and the latter on the sound for the South Sea Islands.

The stevedoring work, for the quartermaster's department for the next fiscal year beginning June 30, will be in charge of Rothschild & Co. The department of Washington will have to approve the bid before the award is made. The Washington Stevedoring Company hold the contract at present.

The revenue cutter fleet, consisting of the Rush, the Thetis, and Manning, will start for Alaska May 15th, cruising through Unimak Pass to Dutch Harbor, in the Aleutian Islands.

Pribiloff Islands in Bering Sea, where seal poaching is carried on extensively by the Japanese and other foreign nations, will be carefully patrolled by the cutters during the summer months.

Portland.—The port of Portland will have an active competitor, in the Columbia River bar service, in the shipping firm of Pope & Talbot, the owners of the Puget Sound Tugboat Co. The Tugboat Co. intend to place a fast tug like the Goliath on the service, and will go after the business of the deep water vessels, leaving the coastwise vessels to the Port of Portland. If the Port of Portland expect to enter the field on equal terms with the Puget Sound Tugboat Co., they will be compelled to build a new tug, as their competitor has the fastest tugs on the Sound at the present time.

The hulk of the historical old merchant ship Zafiro will be sold by a Board of Inspectors of Portland. A few days before the battle of Manila Bay the Zafiro was anchored in the harbor of Hong Kong loaded with coal, and was purchased outright by Commodore Dewey, enabling him to coal his fleet, consisting of the protected cruisers Olympia, Baltimore, Raleigh, and Boston, the fourth rate cruiser, Petrel, the gunboat Concord, and the revenue cutter Hugh McCulloch; taking the Zafiro along as a supply ship; although greatly superior in equipment to the Spanish fleet of four cruisers and ten small gunboats. Commodore Dewey succeeded in destroying the fleet and silencing the shore batteries of the Spanish. The battle was fought May 1, 1898, lasting from 5:40 in the morning until 12:30 midnight, resulting in a loss of six to the Americans and about 650 to the Spanish. Commodore Dewey's fleet was practically uninjured.

The fleet of the Schubach-Hamilton S. S. Co., which plies between this port, St. Michael and Nome under a traffic agreement, will operate to connect with the lower Yukon River fleet of the North American Trading & Transportation Co.

Besides improving their service between Portland and San Francisco by putting the S. S. Kansas City on the run, the San Francisco and Portland S. S. line will also make a healthy improvement in the cost of transportation. The prevailing rates between Portland and San Francisco are now \$5, \$10, and \$15. It is now proposed to in-

crease the rate to \$10, and \$20 for steerage and first-class passengers respectively.

The management of the British ship Leyland Brothers has been transferred from the R. W. Leyland Company to J. H. Welsford & Co. The Leyland Co. have retired from business.

The fact that three disengaged foreign sailing ships, in this harbor, have turned down offers of lumber cargoes for South Africa, is conclusive evidence that the owners expect, in the near future, to charter their vessels at the union rate of 27s. 6d. to carry grain to the British Isles.

The French bark Le Pilier had been chartered by a Portland exporter for this purpose at the regular union schedule. She is of 1739 tons net and is capable of handling 110,000 bushels of wheat.

The excursion steamer Hyak, being built by J. Supple, for the Kitsop Transportation Company of Seattle, will be completed about April 20th. The boat is expected to make a speed of twenty miles an hour.

Corporation papers have been issued to the Schubach-Hamilton S. S. Co., with Albert Schubach, president; Chas. H. Hamilton, vice-president; A. R. Shay, secretary, and W. C. Dawson, manager. The firm was originally Schubach & Hamilton.

Tacoma.—Congress has appropriated sufficient funds to improve and extend the Puyallup waterway 5,000 feet beyond its present limits. Major F. W. Kutz, U. S. army engineer, in charge of the government work in this district, will make a preliminary survey in a few weeks.

Victoria, B. C.—The Blue Tunnel line is having four new liners built with spacious accommodations for passengers, and the report is current that the line will enter the trans-Pacific trade.

The S. S. Tess has salvaged all the material possible

on the wrecked four-masted schooner Sequel, fast on Sea Bird rocks, and the salvaged material will be turned over to J. C. Newbury, collector of customs, who is the receiver of wrecks, charts, and other movable gear.

The steamer Kaga Maru, of the Nippon Yusen Kaisha, is now commanded exclusively by Japanese officers.

Gray's Harbor.—The schooner Chas. E. Falk, owned by J. R. Hanify & Co., is reported ashore ten miles from here. Tugs that were dispatched to the assistance of the disabled vessel cannot get within three miles of her, owing to her peculiar position, and there is very little hope of saving the vessel, which will be stripped and abandoned. The captain lost his bearing during a severe storm.

The Chas. E. Falk was built in 1889 at Fairhaven, Cal., by H. D. Bendixen. She is a three-masted wooden vessel of 299 tons, 142 feet long, 34 feet broad, and 24 feet deep.

Marshfield, Oregon.—The Western Pacific R. R. Co. is having two large car barges built by Kruse & Banks, ship builders of North Bend. The barges will be used to transport trains across the bay and will accommodate sixteen cars. One will be completed in two weeks and the other early in May. The barges will be towed from Coos Bay to San Francisco.

Seattle.—The P. C. S. S. City of Seattle has been placed on the Lyon Canal run, after being out of commission for several months. Captain O'Brien is in command.

The salmon fleet will consist of about twenty ships this season, and the last of them will be well on their way in two weeks' time.

TIDE TABLE TO WEEK ENDING SATURDAY, APRIL 7.
Golden Gate Entrance to San Francisco Bay.

APRIL

Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
Full	Mon.	5	5:20	1.4	11:12	4.9	17:28	1.3	23:48	5.2
	Tues.	6	5:55	1.1	12:15	4.9	17:56	1.6		
	Wed.	7	0:02	5.2	6:26	0.8	13:00	4.7	18:30	2.0
	Thur.	8	0:26	5.1	7:00	0.6	13:53	4.4	19:04	2.4
	Fri.	9	0:50	5.2	7:45	0.5	14:54	4.2	19:42	2.8
S 3rd. quar.	Sat.	10	1:13	5.2	8:35	0.3	16:10	4.0	20:22	3.2
	Sun.	11	1:45	5.2	9:30	0.3	17:32	4.2	21:28	3.5
	Mon.	12	2:32	5.1	10:32	0.2	18:42	4.3	22:35	3.6
	Tues.	13	3:50	5.0	11:35	0.2	19:34	4.5		
	Wed.	14	0:02	3.5	5:30	4.9	12:38	0.1	20:15	4.8
P New	Thur.	15	1:15	3.1	7:00	5.1	13:36	0.1	20:48	5.1
	Fri.	16	2:14	2.4	8:08	5.3	14:30	0.2	21:24	5.4
	Sat.	17	3:05	1.7	9:12	5.4	15:25	0.4	21:56	5.7
	Sun.	18	3:55	1.0	10:08	5.5	16:10	0.7	22:30	5.8
	Mon.	19	4:42	0.4	11:05	5.6	16:52	1.0	23:05	6.0
N 1st. quar.	Tues.	20	5:23	0.0	12:04	5.4	17:36	1.5	23:40	6.1
	Wed.	21	6:10	0.3	13:04	5.3	18:18	2.0		
	Thur.	22	0:20	6.0	7:02	0.5	14:07	4.9	19:02	2.4
	Fri.	23	1:00	5.9	7:55	0.5	15:20	4.5	19:53	3.0
	Sat.	24	1:44	5.6	8:53	0.3	16:35	4.5	20:50	3.3
A Full	Sun.	25	2:30	5.4	9:54	0.1	17:46	4.6	22:02	3.6
	Mon.	26	3:33	4.9	10:55	0.1	18:50	4.6	23:35	3.6
	Tues.	27	4:52	4.7	11:55	0.3	19:40	4.9		
	Wed.	28	1:00	3.4	6:12	4.5	12:48	0.5	20:18	5.1
	Thur.	29	2:00	3.0	7:24	4.5	13:35	0.7	20:50	5.3
E Full	Fri.	30	2:42	2.4	5:25	4.5	14:24	1.0	21:17	5.3
	Sat.	1	3:16	2.0	9:18	4.6	15:05	1.2	21:45	5.3
	Sun.	2	3:48	1.5	10:04	4.6	15:40	1.5	22:08	5.4
	Mon.	3	4:20	1.1	10:45	4.8	16:10	1.7	22:24	5.5
	Tues.	4	4:46	0.7	11:28	4.7	16:45	2.0	22:47	5.5
Full	Wed.	5	5:21	0.3	12:15	4.7	17:20	2.3	23:15	5.5
	Thur.	6	6:00	0.0	13:06	4.6	17:55	2.7	23:38	5.5
	Fri.	7	6:40	0.2	14:04	4.5	18:35	3.2		

Time used, Pacific Standard, 120th Meridian W.
0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	18	Mar. 30	Buoys No. 10, 12, upper harbor gone, vessels crossing bar now passing of bar buoys leaving No. 2 1000 Feet away.
Willapa Bay	27	Apr. 1	Channel not changed.
Columbia River	24	Feb. 6	
Nehalem River			
Tillamook Bay	13	Mar. 2	Channel shifting about $\frac{1}{4}$ mile to southward is now $\frac{1}{8}$ mile south of the whistling buoy.
Yaquina Bay	13	Mar. 12	Channel not changed
Siuslaw River	3 $\frac{1}{2}$	Mar. 16	Channel gone to north end of jetty and beacon on high bank marks channel now.
Umpqua River	9	Apr. 1	Channel to northward of old established ranges.
Coos Bay	18	Apr. 1	Channel remains about the same. Aids to navigation in good condition.
Coquille River	9	Mar. 26	2 buoys gone; channel in middle between jetties.
Rogue River.			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	6	Mar. 10	Entrance at present immediately opposite mouth of river.
Humboldt Bay	19	Apr. 1	North channel very narrow and crooked, difficult to navigate for large vessels; about 13 feet in south channel.
San Pedro Bay	20	Feb. 24	No change in channel.
San Diego Bay	26	Feb. 25	No change in channel.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS.

Astoria. The lighthouse department of Astoria has ordered a new gas buoy to be placed on Tongue Point crossing. It will be designated as buoy No. 1½, and will be located between gas buoy No. 1 and Beacon Light No. 1. It will be set as soon as practicable.

Captain H. Feldmann of the German S. S. Numantai reports that January 6, 1909, in latitude 40 deg. 34 min. north, longitude 124 deg. 34 min. west, he passed several large logs and driftwood.

Washington, Juan de Fuca Strait entrance, Swiftsure Bank Lightvessel to be established. About April 20, 1909, Swiftsure Bank Lightvessel No. 93 will be established in 138 ft. of water on Swiftsure Bank, about thirteen miles north, 48 deg. 40 min. west from Cape Flattery.

Lightvessel No. 93 will show one fixed white light, about fifty feet above the water from the mainmast, and one fixed red light, about thirty feet above the water from the foremast, each from three lens lanterns encircling the masthead.

During thick or foggy weather lightvessel No. 93 will sound a 12-inch steam whistle, giving blasts of two seconds duration, separated alternately by silent intervals of two and twenty-four seconds. Should the steam whistle be disabled the ship's bell will be rung by hand.

Lightvessel No. 93 is a flush-deck, schooner-rigged, steam vessel, with two masts, no bowsprit, and a black smoke-stack and the steam whistle between the masts. The hull is painted with the name Swiftsure in black on each side, and 93 in black on each bow and each quarter. The masts are red with a white hoop-iron daymark at the head.

Approximate position: Latitude 48 deg. 32 min. 9 sec. north; longitude 124 deg. 58 min. 50 sec. west.

CHANGES AMONG SHIPS' OFFICERS.

Following are the names of the officers on the P. C. S. S. President: Captain N. E. Cousins, C. Brown, 1st officer; W. Matheson, 2d officer; F. Gilboy, 3d officer, and R. Ferguson, 4th officer. A. C. Plumb, chief engineer; W. S. Pierce, 1st assistant; E. Lacy, 2d assistant, and C. Huertkon, 3d assistant.

G. Clemmen resumed his position as third assistant officer on the G. W. Elder. P. Rogers has been placed on the waiting list.

Captain Friele has again taken command of the S. S. China.

C. Johnson has resumed his position as 1st officer on the S. S. Governor, relieving S. Scoby. Mr. Scoby will be assistant port captain of the Pacific Coast Steamship Company.

S. N. Sundgren has resumed his position as second officer on the S. S. Coos Bay.

Following are the names of the officers of the P. C. S. S. Queen: H. C. Thomas, master; C. C. Moore, 1st officer; H. C. Clark, 2d officer; F. Edthofer, 3d officer., chief engineer; J. R. Williams, 1st assistant, Swett, 2d assistant; J. H. Eachern, 3d assistant.

R. H. Bagott accepted position as 4th officer of the S. S. Santa Rosa.

N. P. Short, formerly watertender of the U. S. A. T. Thomas, was promoted to 3d assistant engineer, relieving De Cortona, resigned.

Peter Peterson, 1st officer on the Breakwater of Portland, has resigned, having a master's position in view.

Captain Edward Johnson is to succeed to the command of the steam schooner J. J. Loggie, vice Captain Ranier, who is to take charge of the big steam schooner which is being built at the Bendixon yards here for McCormick & Co.

Captain A. Dixon has been relieved of the command of the S. S. Siberia by Captain Adrian Zeeder, and will resume command of the S. S. Manchuria.

LOCAL NOTES.

Facing a perilous trip up the coast to Eureka from this port the gasoline steamer Katata sailed Friday. Should a storm arise or a break occur, the schooner would meet almost certain destruction.

The Katata is 55 feet long, 14 feet beam and is a ten-ton vessel. The schooner will be used by the Hume Salmon Co.

Inspectors of Steamboats Bolles and Bulger have rendered a decision in the case of the wreck of the Sibyl Marston. Captain Schillinsky is charged with negligence and unskillfulness in navigating the Sibyl Marston. The inspectors rendered the decision in accordance with the new ruling of the department of commerce and labor, which requires them to place the charges after an inquiry, and then try the accused on the charges at another examination.

The board of supervisors of Tehama county have been requested to consider the erection of a steel bridge over the Sacramento between Tehama and Molino.

Many freighting steamers of the Sacramento Transportation Co. are idle because of the dullness of river traffic. The company will accept this opportunity to thoroughly overhaul the steamers in anticipation of a revival of freighting during the fruit season.

The Chamber of Commerce of Oakland is proposing to dredge the harbor from Tenth avenue, extending into the estuary and westward to the mouth of the estuary. The channel in the estuary is 600 feet wide and 25 feet deep, and the chamber will dredge the entire basin to a uniform depth of 30 feet.

Of 1,000,000 feet of lumber, which comprised the cargo of the wrecked steamer Sibyl Marston, 600,000 feet were saved, the balance being broken to kindling wood and scrap.

The A. J. West Lumber Co., that loaded the Sibyl Marston at Aberdeen, Wash., will stand the loss of salvage and also the difference of the contracted price and the price received at Surf.

The Whitelaw Wrecking Company have succeeded in salvaging a large quantity of gear and machinery from the wrecked steam schooner R. D. Inman. The schooner is in no danger of breaking up and there is a good chance of reclaiming the entire main engine.

The Immigration Bureau is investigating the escape

of three Chinese from the British tramp steamer Century, which is docked at the China basin wharf. The Chinese were members of the ship's crew, and from all accounts no precautions were taken to prevent the escape of the fugitives. The steamer's master, Captain Downie, and Waterhouse & Co. will be held liable, in case the Chinese are not captured, under the immigration laws to a fine of \$500 for each of the Mongolians.

The Pacific Coast S. S. Company's steamers State of California and Umatilla will be laid up for an indefinite period, having been superseded by the steamers President and Governor. The carrying capacity of the State of California and Umatilla has been taxed to the limit for a long time and it was necessary to secure steamers of larger freight and passenger facilities. The vessels will be laid up off the Berkeley side, east of Goat Island.

Upon arrival at San Francisco from Seattle, where she is loading 20,000 tons of wheat, the steamer Tallac will lay up for annual repairs.

Lang and McPherson of Vallejo have violated the injunction issued by Judge Buckles depriving them of the right to run launches between Vallejo and Mare Island. The Vallejo Ferry Co. secured the injunction against Lang and McPherson.

In the suit of Roy B. Goodwin vs. E. K. Wood Lumber Company, owners of the steamer Olympia, on which Goodwin was second assistant engineer, Judge De Haven of the United States District Court ruled in favor of the plaintiff, and the defendant was ordered to pay Goodwin \$5.40 for nine hours' overtime.

Goodwin will not be able to recover his regular wages as he broke his contract by leaving the ship before the cargo was discharged.

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Name.	State.	Locality.	Lat., North.			Long., West.		
			Deg.	Min.	Sec.	Deg.	Min.	Sec.
Waadah Island.....	Washington.....	48	22	40	124	35	30
Gray's Harbor.....	".....	Just south of Grays Harbor light.....	46	53	15	124	07	15
Willapa Harbor.....	".....	Near lighthouse boat landing.....	46	43	00	124	03	00
Ilwaco Beach.....	".....	Thirteen miles north of Cape Disappointment.....	46	27	50	124	03	25
Cape Disappointment.....	".....	Bakers Bay, one-half mile northeast of light.....	46	16	40	124	03	00
Point Adams.....	Oregon.....	Three-fourths miles southeast of Fort Stevens.....	46	12	00	123	57	00
Tillamook Bay.....	".....	.....	45	33	30	123	57	00
Yaquina Bay.....	".....	About one mile south of harbor entrance.....	44	35	30	124	03	54
Umpqua River.....	".....	Near entrance of river, north side.....	43	42	00	124	10	30
Coos Bay.....	".....	Coos Bay, north side.....	43	22	50	124	18	00
Coquille River.....	".....	In town of Bandon.....	43	07	00	124	25	00
Humboldt Bay.....	California.....	Near the old abandoned lighthouse tower.....	40	46	00	124	13	00
Arena Cove.....	".....	Four miles south of Point Arena light.....	38	54	50	123	42	30
Point Reyes.....	".....	Three and one-half miles north of light.....	38	02	20	122	59	30
Point Bonita.....	".....	Near Point Bonita light.....	.....	.....	.....	.....	.....	.....
Fort Point.....	".....	Three-fourths mile east of light on Fort Winfield Scott.....	37	48	10	122	27	50
Golden Gate.....	".....	On beach in Golden Gate Park, San Francisco, three-fourths mile south of Point Lobos.....	37	46	10	122	30	30
Southside.....	".....	Three and three-eighths miles south of Golden Gate Life-Saving Station.....	37	43	18	122	30	18
Nome.....	Alaska.....	At Nome.....	64	30	00	165	23	00

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4. Rockets or shells as prescribed below for use at night.
5. A continuous sounding with a steam whistle or any fog-signal apparatus.

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PACIFIC MERCHANT MARINE



SATURDAY, APRIL 17, 1909

VOL. II

NO. 5

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Volume II

SATURDAY, APRIL 17, 1909

Number 5

SPEECH OF HON. J. SLOAT FASSETT OF NEW YORK IN
THE HOUSE OF REPRESENTATIVES
TUESDAY, MAY 26, 1908.

(Continued from last week's issue.)

But, it may be objected, we can not dip into the Treasury for individual or private purposes. I reply, this would be dipping our hands into the National Treasury for the highest possible public interest; for our safety in times of war and for our welfare in times of peace. We can meet the world in competition on equal terms. But for years there has ceased to be natural competition on the open seas. We have handicapped ourselves by the high cost of production resulting from our high protective tariff, and our rivals have handicapped us further by their unstinted subsidies to their merchant navies.

If mere cheapness be our cry, then why not open our coastwise trade? Norwegian vessels can do the work, German vessels can do the work, Japanese vessels can do the work, 40 per cent cheaper than our coastwise vessels do now. They would do it with cheaper built ships, built by cheaper paid men, living on cheaper food, but they would do it and we would see our coastwise trade, which now employs 6,000,000 tons, collapse more suddenly and more completely than our foreign trade has done. And, also, we should see collapse every American shipyard, save those only which we subsidized in the way of vastly profitable contracts in building battleships. By thus protecting our coastwise trade we are to that very extent encouraging individuals and corporations contrary to the teachings of the strict constructionists.

The Democratic opposition so solidly made to giving subsidies either in the way of return for carrying the mails or as a reward for carrying tonnage seems to be based, if one can judge from the arguments which have been presented in this chamber upon the other side, upon the idea that it is improper to make direct appropriations for such a purpose; that in so doing in some way we give an improper advantage to some individual or corporation. Gentlemen forget that it is impossible to benefit everybody without giving a benefit to somebody. We have been for many years in the habit of appropriating for the general welfare by means of gifts and subsidies and encouragements and protection to special interests. Even the most broadly conceived measure for the most universal benefits must work out its results by application to certain special localities and to certain special interests and to certain individual enterprises.

We gave cheerfully for years a subsidy to the Southern Railway Company of nearly \$165,000 annually to benefit all the people by special acceleration and improvement of the mail facilities through the few states traversed by the Southern Railway Company. For every 7 cents the United States pays out for transporting through the mails newspapers and second class periodicals it receives in return but 1 cent, and for every million dollars it receives from this source it pays out seven millions. This is in the interest of the distribution of intelligence. Whether one is inclined to quarrel with it or not to quarrel with it, it is a subsidy, and it is a subsidy of a special interest, the first beneficiary being the individuals who own the newspapers and the second class periodicals. Ultimately there is undoubtedly a benefit wide enough to justify the continued expenditure.

We have not hesitated to provide millions for the irrigation of arid lands. The general benefit of this is indisputable, but the same principle is involved. Only recently this House appropriated from the public treasury \$250,000 for the benefit of sufferers from a cyclone that swept through a part of the southern states. The Democratic representatives from those same states oppose a ship subsidy, and oppose it on the ground that it appropriates public money to individuals, but they do not hesitate to appropriate this quarter of a million dollars to the people whose homes and buildings were burned down and who were made penniless by a catastrophe beyond their control. It was a meritorious outlay, no doubt, but it could not be defended on any grounds which would not equally include a subsidy to American shipping.

We have not hesitated to give billions of dollars' worth of bonds and lands to railroads to secure better trade facilities be-

tween the states inside continental lines; we have not hesitated to give billions of dollars' worth of land to individual citizens, in order that they might build homes, rear families and make expanding home markets for manufacturers to sell goods to and the railroads to carry freights to and from.

We have not hesitated to spend \$200,000,000 for a Panama Canal. Since 1888 we have appropriated nearly \$300,000,000 to improve our rivers and harbors. We have not hesitated to appropriate for forty and fifty foot channels in some favorite harbors, and we have not a single American ship to go through the Panama Canal for foreign trade when built, nor a single ship of any kind requiring forty or 50 foot channels at any harbor.

We have done everything, everywhere, for every kind of trade and every kind of industry and every kind of manufacturing except shipbuilding enterprises for the high seas. We have generously built up a navy of fighting ships of sufficient strength to protect us upon the high seas, and we have absolutely almost nothing on the high seas to protect, and will soon lose what we have. We have sixteen battleships, going now to Pacific waters, and with them are attending convoys, and our deep-sea-going steamships in all the world on both oceans are just sixteen, of which only seven are on the Pacific.

What are the remedies? The remedies proposed are:

First—Free ships, by which is meant that we shall have the privilege of buying ships in the markets of the world and registering them under the American flag. That would bring us at once to an even keel with our competitors, so far as the first cost is concerned. The objection would be that it would be just so much business taken away from our own shipyards. It must be remembered that already we allow the importation of all materials to be used in the construction of a ship, free of duty, with one limitation, which seems to be a serious objection, that the ship forfeits its right to engage in a coastwise trade at any time for more than two months.

The next remedy suggested is differential duties, or rebates on duties on all goods imported in American bottoms. There are two objections to this:

First—That fully half of the goods we import are on the free list and could not receive any differential duty.

Second—We have many treaties with our different trade rivals, absolutely guaranteeing that their goods shall be received on equal terms with our own, and to violate these treaties might lead to war.

The next proposition is just the converse—that we should pay a bounty on outgoing goods in American bottoms. The objection to this is that we have the same number of treaties which guarantees that no such differentials shall take place.

The third remedy is that of giving direct subsidies based on service, either in the way of carrying mails or freights, or making certain speed. This method is pursued by all of our rivals. In addition to direct subsidies some of them give encouragement in the way of retainers or rebates. England, for instance, pays an annual retainer to over 32,000 seamen and pays a handsome bonus for mail contracts.

In addition to direct subsidies, Germany pays in the way of rebates on the state railroads on freight charges on goods to be exported in German bottoms.

Japan subsidizes in more ways than one, and the significant proposition is that they all subsidize enough.

The objection raised against direct subsidies is purely academic, and whatever force it has applies only to subsidies made with a view to commercial expansion. It must fall to the ground when brought to bear on the proposition of national defense. We pay \$146,000,000 a year in pensions on account of wars that have been and for the encouragement to volunteers in wars that may be.

We expend \$125,000,000 every year to take care of our navy; we expend \$90,000,000 a year to take care of our army; we expend \$25,000,000 a year for fortifications, and \$10,000,000 or \$15,000,000 a year to maintain lighthouses and other similar services.

We begrudge nothing for the national defenses in this way which appeals to us directly, but in order to make valuable

the outlay which we have already incurred, and in order to utilize in time of peril the defenses we have already provided, we must have a merchant navy. We have neglected altogether too long; we have not only neglected, but it almost seems that we have been inspired to assist our rivals. We pay \$700,000 per year to American vessels for carrying the mails to Europe; last year we paid almost as much to foreign vessels, and this year we will be paying \$600,000 to foreign steamboats for carrying our mails. When we turn to the other side of the account and see if our few struggling steamships have received encouragement from their trade rivals, we discover a situation in decided contrast to our own generous courtesy.

PROGRESS OF THE PANAMA CANAL.

The grand total of excavation for the month of February was 3,148,879 cubic yards, of which 1,857,315 cubic yards were removed by steam shovels, 1,269,399 cubic yards by dredges, and 22,163 cubic yards by hand and scraper.

Work on the handling plant at Gatun, in the Atlantic division, is advancing steadily. The unloading cableway dock is practically completed and the cement shed dock is ready for roofing. The timber work on the storage pile tonnage is 99 per cent completed, a total of 364,000

ery for laying concrete was begun. The borings along the canal prism were completed and additional borings on the axes of the east and west dams at Pedro Miguel, and of the west dam at Miraflores, to verify the depth of rock at certain points. Work was begun at the sand storage dock at La Boca.

The average daily number of laborers employed on actual canal construction was 14,330. There were 331,890 tons of explosives used, and 438,270 feet, or 83 miles of rock drilling were accomplished.

On the relocation of the Panama railroad 85,004 cubic yards were excavated and 231,175 cubic yards placed in embankment during the month, making a total of 886,028 cubic yards of excavation and 3,563,464 cubic yards of embankment accomplished to date. A total of 74,138 lineal feet, or 14 miles of permanent track have been laid on the re-located line. The average daily force of laborers on this work was 1,487.

During the month a net profit of \$3,131.61 is shown in the operation of the line, hotels, messes and kitchens, and the Hotel Tivoli showed a profit of \$4,614.41.

The total revenue of the canal zone in February ag-



AN OPEN-AIR KITCHEN IN VOGUE BEFORE NEW ONES WERE ERECTED

feet B. W. of creosoted lumber having been used in these tunnels.

The roadbed for the automatic electric road is 90 per cent completed, and work on the cableway towers was actively prosecuted. At the end of the month the walls and turbine foundations at the power house were completed to the level of the main floor, and the steel in the east end of the building was in place. The framing of the mixer building, and its approach channel, and the foundation for the driving machinery were completed. At Gatun Dam a total of 239,795 cubic yards of material was placed in the dam, 19,772 cubic yards of this amount being rock from Bas Obispo. The erection of the air compressor plant at Porto Bello was completed during the month, and compressed air is now being furnished to the rock drills at the quarry. The electric light plant at Porto Bello was put in operation on February 27.

In the Pacific Division work was continued on the handling plants for the Pacific locks and dams. At Pedro Miguel the work of filling the west dam was begun, over that portion of the dam for which the core trench has been completed. At Miraflores the installation of machin-

gregated \$19,980.51 and the general revenues amounted to \$12,363.89.

The total enrollment in the white schools during the month was 694, and the average daily attendance was 599. In the colored schools the enrollment was 1,340, and the average daily attendance was 855.

Depth of the Old French Canal.

A hydrographic survey of the old French canal between Cristobal and Gatun Dam has been completed. It shows that the ruling depth from Cristobal to the entrance of the channel, which leads up to the handling docks at Gatun locks, is 12 feet, and 9 feet up to the spillway docks. In several places the canal is 30 feet deep and throughout the greater part of the distance from Cristobal to Gatun it is over 15 feet. The survey was made preparatory to placing a dipper dredge at work and which will excavate until the least depth is 15 feet. This depth is necessary in transporting rock and sand to Gatun. At present the rock and sand barges coming to Gatun are not loaded to full capacity.

Slide on the Panama R. R. Relocated Line at Gatun.

Another slide occurred at the Panama railroad em-

bankment near Gatun on Saturday, March 20, when a section of the fill 300 feet long settled about thirty feet. The embankment had reached practically the final height, 95 feet above sea level, and was the full width required, throughout nearly its length.

The occurrence was identical with the other slides which have taken place in this vicinity, the heavy rock that had been dumped settling and displacing the soft mud and clay below. In all previous slides in this place the movement has been westward, towards the Chagres Valley. In this case the movement was eastward toward the hills of Gatun ridge, indicating that the wide, flat slope built along the west side of the embankment had stopped further movement in that direction.

Pile drivers are at work building a trestle across the depression made by the slide, and when finished, more material will be dumped in the embankment, until it is again brought up to the proper grade. In case other settlements occur, the same process will be repeated until the equilibrium of the embankment is established.

Concrete in Gatun Spillway.

The first concrete to be laid in the canal work proper was placed in the spillway of Gatun Dam on the morning of March 17. The plant worked well and in less than five hours on the first day 122 cubic yards of concrete were laid. It is not expected that the plant will reach its full capacity this month, but early in April it is probable that between 300 and 400 cubic yards of concrete will be turned out every day of nine hours. At this rate the lining of the spillway will be completed before the beginning of the rainy season of 1910, when it is proposed to turn the Chagres river through the new channel.

The channel to be lined is 1,200 feet long and 300 feet wide, and the width of the completed spillway will be 284 feet. The floor will be from four feet to eighteen inches thick, with the surface at 10 feet above sea level. The walls will be 3 feet thick at the surface of the floor; they will rise on a 1 to 10 slope on the face, and at 4 steps at the back to 3 feet thick at the top, which will be 20 feet above the floor. The building of the concrete dam, and the other concrete in connection with the regulating works will bring the amount of concrete to be laid in the spillway up to about 200,000 cubic yards.

The mixing plant for the spillway concrete is located on the French canal about 100 yards north of the north toe of Gatun Dam and 4,000 feet from the north end of the spillway. A dock has been built on the canal and barges of rock from Porto Bello, and from Nombre de Dios, and cement from the ships at Cristobal tie up alongside. On the dock are a storehouse for cement, and storage bins for rock and sand. Two narrow gauge railroads extend under the cement storehouse and storage bins, and on them run the cars that carry the materials to the miners. These cars are built in two compartments.

A car moves under the cement house, and a chute is opened which delivers two barrels of cement into the smaller compartment. The car then moves forward and is stopped under the sand bin, where the compartment into which the cement has been run is filled with sand. When the car again moves forward and the larger compartment is charged with rock under the rock bin. The proportions are one part of cement, three of sand, and six of rock. The charged car is pulled by a cable up an incline 24 feet high to a platform above the mixers, and when in position to deliver its load into the hopper its side doors are opened automatically, allowing the rock, sand and cement to fall into the mixers.

MEETING OF THE BOARD OF STATE HARBOR COMMISSIONERS, THURSDAY, APRIL 15, 9 A. M.

The board accepted the bid and approved the bond of \$182,000 of the Associated Contracting Co. for construction of pier 36, except cement, track nails and fish plates. Secretary Thorpe was instructed to return all certified checks to their respective owners.

Representatives of the coastwise transportation companies protested against refusal of the board to rebate tolls on flour in transit. The matter was referred to the attorney of the board for an opinion.

Wm. McKenzie, superintendent of Southern Pacific river steamers, sent a communication to the board, stating that for some time his company had been paying the San Francisco Gas and Electric Co. for the use of arc lights on La Rue dock; that arc lights are being furnished to all other docks on the city front by the State and are included in the monthly rental charge. He asks to be advised of the possible error of charging the company for lights on the wharf named. The communication was ordered filed and secretary instructed to notify Mr. McKenzie that a refund of \$1.30 for each light used would be allowed commencing April 1, 1909.

Julian B. Harris, certified public accountant, reported on the books of the board for the quarter ending March 31, 1909, and found the same correct.

The form of lease presented by Secretary Thorpe, for the berth of the lighthouse tender Sequoia, was ordered made in triplicate as requested by the engineer of the 12th lighthouse district, and the secretary authorized to execute a lease in the name of the Board of State Harbor Commissioners a lease of berth space on the north side of Howard street wharf No. 2, commencing at the bulkhead, thence a distance of 200 feet, with exclusive use of said space for the Sequoia, and other vessels of the lighthouse service; also a similar amount of shed space alongside said berth.

The Pacific Coast Coal Co. applied for 400 feet of space on Pier 32 when completed. The space is required to erect four hoisting towers. Space will also be required for a 200-ton pocket, and a bridge connecting the company's property with the pier. Action on the application was deferred, pending completion of plans for the proposed pier.

The California Transportation Co. requested the Board to consider the advisability of erecting fire plugs on Jackson and Washington street wharves, for the protection of state and other property; the company offered to furnish hose for the fire plugs; the matter was referred to the engineer of the Board for report as to cost and practicability.

The engineer of the Board submitted plans and specifications for a shed on Filbert street wharf (Pier 21), with estimated cost of \$15,000; bids will be called for. The engineer also submitted plans and alterations to adapt Central Basin for handling lumber. No action was taken in the matter. The estimated cost is \$25,000.

Smith, Emery & Co. were awarded the contract for inspection and testing of cement for construction of Pier No. 36, at a cost of 5 cents per barrel. Robert W. Hunt & Co. were awarded the testing and inspection of structural steel to be used on the same pier; at a cost of 65 cents per ton.

NORTHERN COAST NOTES.

Seattle. The Alaskan excursion steamer Spokane, belonging to the Pacific Coast S. S. Co., is receiving an

overhauling preparatory to resuming her regular summer excursion run between Seattle and southern Alaskan ports.

The steamer Zampico, of the Pacific Coast S. S. Co., is laid up temporarily at this port.

An expedition, headed by Ernest de Koven Leffengwell, geologist and Arctic explorer, will leave this city about May 1, to map and survey northern Alaska.

The auxiliary yawl Argo, which will carry the party to northern waters, is now being built in this city under the direction of Mr. de Koven Leffengwell. The yawl is 50 feet over all, 14½ feet beam, and has a 3-foot draft. She is equipped with a 2-cylinder 12-horse power auxiliary gas engine. The Argo will sail under the flag of the Chicago Yacht Club.

A new steamship company has been organized under the name of the Best S. S. Co., with Chas. G. Coker, formerly of the Inland Navigation Co., at its head. The S. S. Victoria, which is being remodeled at a cost of \$10,000, and another boat, which was recently purchased in the East, will be placed on the Bellingham-Seattle-Tacoma and Inland run within a month. The vessels of the company will carry passengers only, the freight traffic being left to the regular freighters.

The proposed straightening and widening of the channel of the Deervamisk will add twenty-four miles to Seattle's water front. The aid of both the State and National Governments is being solicited to carry out the project.

After thoroughly inspecting the condition of the fireboat Snoqualmie, F. C. Hibbs, superintendent of construction of the two submarines to be built by the Moran Co., rendered a report to the city council, stating that the fireboat was only in need of a few minor repairs to make it seaworthy. The city council was about to condemn the boat, without an investigation, as unsafe and unfit for use in fighting fire.

A naval board has selected a site for the new storehouse, to cost \$260,000, to be constructed at Bremerton, in connection with the Puget Sound Navy Yard.

The first of the six 6,000-ton steamships of the Osaka Shosen Kaisha, the Tacoma Maru, is scheduled to arrive in this port July 19, connecting with the Chicago, Milwaukee and St. Paul R. R.

The second vessel of this company, the Seattle Maru, will be launched about May 1st. It was the intention of the company to build but four steamers for this run, but the outlook for increased business warrants the addition of two.

The Osaka Shosen Kaisha owns and operates 106 steamships and is one of the largest Japanese shipping companies.

The Tacoma-Vancouver S. S. Co. has filed articles of incorporation at the office of the Secretary of State, with a capitalization of \$50,000. The corporation operates the steamer Morning Star between Seattle and Vancouver.

Victoria, B. C.—The government of Uruguay has agreed to compensate Captain Balcom, of this city, and associates, for the seizure of the sealing schooner Agnes G. Donahue, which was captured in the waters of Uruguay three years ago while on a sealing expedition, and taken to Montevideo, where her crew were detained in prison for several months, Captain Ryan being sentenced to two years' imprisonment. The Agnes G. Donahue, which was one of a fleet of seven sealers that went from Halifax to the sealing grounds off Uruguay and Cape Horn, is now hunting in Antarctic waters.

Astoria, Ore.—The Benson Logging Co. have sold their seagoing life raft works to San Diego capitalists. The deal includes the old cradle at Wallace slough, two complete sea rafts of 5,000,000 feet each, a new cradle just launched, in which rafts carrying 6,000,000 feet will be constructed hereafter; all the hoisting machinery, pile drivers, chains, two large gasoline towing launches, etc., in this place, and the mills belonging to the company at San Diego, Cal. The consideration was \$400,000, and the new concern, under the name of the Benson Lumber Co., will begin operations at once.

North Bend.—The dock belonging to the Simpson Lumber Co. was partly destroyed by fire, supposed to be of incendiary origin. The loss sustained will be from \$15,000 to \$20,000, with absolutely no insurance.

The steamers operating from this wharf are the Alliance and the M. F. Plant. The steamers will not be handicapped in discharging or taking on freight, as there is sufficient space on the old wharf undestroyed to handle the entire cargoes.

Eureka.—After being in danger of foundering from the day she left San Francisco, the gasoline schooner Kataka, belonging to the Klamath Packing and Trading Co., arrived here six days out from San Francisco. She had three feet of water in her hold, and the cargo, composed of grain, flour, sugar and salt, was comparatively ruined by the salt water.

The Bank of Eureka has purchased from the Bendixon Shipbuilding Co. all iron, timber, lumber and tools at Fairhaven, and all the logs at Bayside. The consideration involved is given at \$9,000.

It is generally conceded that the Chas. R. McCormick Co. of San Francisco, which concern now controls Fairhaven yards, will take over the yards on this bay when the estate of the late J. Lendstrum is settled.

Portland.—The new steamer Hyak, which is being built by H. Supple at the East Side yards for the Kitsap Navigation Co., of Seattle, will be ready to launch April 20. The contract is for a boat that will make 20 miles an hour, and the builder is confident that the Hyak will attain a speed equal to if not to exceed that of the new steamer H. B. Kennedy. The Hyak will be placed on the run between Seattle and Portland immediately after the official trial and acceptance by the Kitsap Co.

Negotiations are being made to carry out the project of a regular steamship line between this port and Yaquina Bay.

The Port of Portland has authorized the purchase of the river towboat Oklahoma, and the tug Wallulu, owned by the O. R. & N., for \$85,000, and has declined to open bids for the construction of steel tugs.

The French bark Joinville has been chartered to bring coal from Newcastle, Australia, to Portland. She is the first collier engaged to come from Australia to this port this season.

The Carmel, which struck the bar while entering the Columbia river on the night of March 26, and smashed her rudder post and part of her keel, has been repaired at a cost of \$5,000. The Carmel was on the drydock thirteen days.

To be prepared in case of an emergency, the owners of the Portland-Tillamook steamer Argo are equipping the vessel with towing bitts. The Argo will be able to handle any distressed vessels that may be found off the coast, thereby earning possible salvage money.

Tacoma.—The British S. S. Shathgyh has been chartered for September grain loading by Kerr, Getford & Co. The steamer was fixed at the union rate of 27s 6d.

LOCAL NOTES.

A meeting of the seawall commission will take place on April 22, at 10 o'clock a. m., to consider the advisability of constructing another section of the seawall. The seawall commission is composed of the State Board of Harbor Commissioners, the Governor of the State, and the Mayor of San Francisco.

There is a possibility that Mexico will subsidize a line of steamers to ply between San Francisco and Seattle, and west coast ports of Mexico and Central America.

A bill has been introduced in Congress to that effect, and as the Department of Communications has recommended the subsidy, the bill will no doubt become a law. The steamship line which will receive the length of this bill is the Jebson Ostrander Co.

According to the terms of the concessions, the Jebson Ostrander Co. will receive a subsidy of \$5,000 per month, and in turn must put steamers of 3,000 tons or over on the run, carry the Mexican mails free and admit two naval apprentices on board.

Captain I. Smith of the army tug Slocum has had his license suspended for ten days, and the license of Pilot T. C. Lockyen of the navy tug Vigilante, was suspended for five days.

This is the result of the episode which has plunged the army and navy (Slocum and Vigilante) into deadly combat, but after two engagements in which the navy was forced to back water, a decisive victory was won by the navy.

The Associated Construction Co. secured the contract from the harbor commissioners to construct pier 36. The company's bid was \$364,000 with a unit bid on any extra cylinders that may be required at the rate of \$3 per lineal foot.

W. B. Shirley of Lakeview, Oregon, is in San Francisco to secure plans and machinery for a new steamer to be operated on Goose Lake. The boat will be complete in every detail, of 200 tons gross burden, and fitted with a screw propeller.

The ship Tacoma, belonging to the Alaska Packer's Co., was slightly damaged by fire while lying at the Spear street wharf preparatory to leaving for Bristol Bay, Alaska. The ship will be delayed for several days while repairs are being made and provisions replaced.

The condition of the revenue cutter service on this Coast has prompted the Chamber of Commerce to petition Senator Perkins to aid in improving the service; and suggesting that the Vicksburg, now at Mare Island, be transferred to this service. There are but six cutters from Alaska to Mexico.

The steamer Leader, which was recently burned to the water's edge in Stockton, will be completely reconstructed. When completed under the new plans she will resemble in many ways the steamers T. G. Walker and J. D. Peters.

The reconstruction of the Leader on the new plans and equipping her with engines, machinery, and other appliances will represent an expenditure of about \$20,000.

The officials of the Jebson and Pacific Mail S. S. Companies have formed an alliance against the Cosmos tramp steamers, and will fix uniform steamer rates.

The Chargeurs-Reunis fleet will abandon Puget Sound as a port of call, with the sailing of the steamer Admiral Hamelin, coming direct to San Francisco from the Orient. The company has found it unprofitable for its liners to call at the northern coast ports, as they are too large for this trade.

The route of the Chargeurs-Reunis steamers has been from Antwerp and other European ports to the Orient, Puget Sound and San Francisco, returning home via ports on the west coast of Mexico, Central America, and South America.

The Alaska Pacific S. S. Co. inaugurated a new schedule with the sailing of the S. S. Watson Friday instead of Saturday, her usual sailing day. The Buckman, which will arrive April 20, will be sent to sea for Seattle the following day.

The new steamer Admiral Sampson, which is being thoroughly overhauled at the Risdon Iron Works, will be ready April 21 for San Pedro.

During the month of March last, eighty-six sail and steam vessels were built and officially numbered in the United States, seventy-three of them being steam, and nine sail, seventy-five of wood, and seven of steel construction. Of the total number thirty-five are for Atlantic and Gulf, twenty for Pacific, fourteen for western rivers, twelve for Great Lakes, and one for Porto Rican services. The gross tonnage of the vessels is 24,924 tons.

During the nine months ending March 31 last, 696 vessels with a gross tonnage of 80,332 were built and chartered in this country, as compared with 765 vessels, with a gross tonnage of 353,763 tons during the corresponding nine months ending March 31, 1908.

LEGAL.

An owner of a vessel, unless it is otherwise definitely stipulated, must pay members of a ship's crew for overtime. Decision rendered by Judge De Haven of the U. S. District Court of San Francisco.

Admiralty courts are to be called upon, according to foreign advices, to adjudicate a novel case growing out of salvage from a British vessel in Japanese waters. The case involves a suit to be brought by the Northern Pacific R. R. Co. for collection of freight charges on part of the cargo. The New York Maritime Register makes the following report:

A nice question of law is likely to arise in connection with the wreck of the British steamer Adato, which has now disappeared from view. The cargo saved from the wrecked steamer was landed by the Tokio Marine Insurance Co., and Messrs. Cornes & Co., Lloyd's agents, on behalf of the underwriters concerned. It is stated by the Japanese papers that the Northern Pacific R. R. Co., which undertook the transportation of a portion of the cargo, is to institute legal proceedings in the American courts against the insurance companies (?) claiming payment of the freight. A Yokohama paper says: "In some quarters the opinion is held that though it is impossible to lay down a fixed proposition in the absence of definite rules, or uses applicable to such cases, it would not be improper for the Japanese law courts to accept such a suit as said to be intended by the American railway company (Northern Pacific Railroad), inasmuch

as the wreck occurred within Japanese waters. Supposing, they say, the American tribunal decides in favor of the plaintiffs, it will have no means of enforcing its judgment except through the assistance of the law courts of Japan. For this reason the proposed lawsuit is of a nature to be instituted in Japan. Much attention is now given to the subject in legal and insurance circles."

Notice to Leasing Seawall Lot.

Notice is hereby given that bids will be received and opened by the Board of State Harbor Commissioners at their office, room 19, in the union depot and ferry house, foot of Market street, in the city and county of San Francisco, state of California, at the hour of 10 o'clock a. m., on Thursday, the 22d day of April, 1909, for the letting or leasing by said board of seawall lot No. 16, together with the improvements existing thereon. Said seawall lot is situated on the water front of the city and county of San Francisco and is bounded by Drumm, Pacific and East streets.

Said property will be let to the highest and best bidder for a term not exceeding twenty-five (25) years, subject, however, to the power of the board, to reject any and all bids, and in accordance with printed terms and conditions of lease, to which reference is hereby made, which are on file in the office of the secretary of the board, copies of which will be furnished bidders on application.

Bids must set forth the purposes for which said lot shall be used and the bidder must agree with the statement of his bid, if the lease is awarded to him, shall be embodied in said lease, and he must also agree that said lot shall be used only for the purposes set forth in his bid.

W. V. Stafford, Walter E. Dennison and P. S. Teller, Board of State Harbor Commissioners. W. B. Thorpe, secretary. April 8, 1909.

L. A. Pederson, trading as the Bristol Bay Packing Co. of San Francisco, has sued the Red Salmon Packing Co. for \$3,000 for transporting the crew of the wrecked ship Lucille from Nakuek river, Alaska, to San Francisco. A contract signed by G. M. Anderson, superintendent of the Red Salmon Packing Co., at that time, agreeing to pay \$3,000 for the transportation of the 168 men comprising the crew, was introduced by the plaintiff. The suit was postponed for one week.

Judgment was given against the Thomas Calstens Packing Co., Tacoma, Wash., in the Kobe court of Japan on the 10th inst., in the claim made against Mrs. Sato Mine, owner of the S. S. Taiyeke Maru for damages. Of 805 casks of beef shipped on board the vessel, 77 were damaged en route.

The reasons for the dismissal of the claim are not yet published.

SOUTHERN COAST NOTES.

San Diego—Chas. Steffgen has secured the contract to construct the wharf, buildings and tank foundations proposed by the Standard Oil Co., on the water front between South Twenty-fifth and South Twenty-sixth streets, the contract price being \$22,500.

The wharf will be 1043 feet in length, with a "T" 50 feet long at the end. The width of the wharf will be 10 feet.

The Board of Harbor Commissioners are collecting data as to the best location of the sea wall which is to be built at San Diego Bay, for which the State Legislature at the last session appropriated \$100,000. The fund for the construction of the sea wall will not be available before June.

San Pedro—The Newport Land Co. have filed an application in the U. S. Engineer's office for permission to dredge in the channel of Newport Bay, near the entrance. The Land Company is preparing to reclaim the west end of Balboa Island.

The Los Angeles Harbor Commission have protested against the application filed by the Bannings and others for permission to build a wharf outside the harbor lines at Wilmington. The protest will be forwarded to the Secretary of War.

Local boatmen have also raised the question as to whether the county supervisors have the right to close Catalina Island to the boats of any other company except the Bannings. The boatmen want the question settled and have appealed to the War Department for light on the subject.

HAWAII NOTES.

The lighthouse which is in course of construction at Makapun point, the eastern extremity of the island, will be completed as soon as the lantern, which is now being brought from San Francisco, arrives. The light when established will be the finest one in the world and will guide vessels for this port arriving from San Francisco and other Coast ports.

Captain Moses, lighthouse inspector of this district, is well satisfied with the new lighthouse tender Kukui, detailed to this division, which has returned from an inspection of the navigation aids on the islands of Hawaii and Maui. The heavy crane for taking up and laying buoys, with which the Kukui is equipped, is too cumbersome for the existing conditions in the islands, and it will be replaced by a boom arrangement similar to that on inter-island freight carrying steamers.

STEAMSHIP CARLOS.

(Frontispiece.)

One of the recent additions to the lumber fleet is worthy of more than passing notice. Built in San Francisco by Stone and Van Bergen, the Carlos was specially designed for the service required and accommodations for 46 passengers. Staunch and equipped in detail, the steamer was launched April 22, 1908, and in command of Captain A. Donaldson was placed immediately on the run between this port and Grace Harbor. Her dimensions are 196 feet, light load, waterline; 40 feet beam; 15 feet depth of hold, and contains a 650 horse power triple expansion engine and Scotch marine boilers; is 865 gross and 541 net tons; and on the trial trip developed a speed of 9½ miles. She has freight capacity of 900,000 feet of lumber, handled by four cargo booms and winches. The popularity of the Carlos is manifested by a clean record of a full passenger list for every trip since the initial voyage.

The Carlos is owned and operated by J. Homer Fritch, Inc., shipping and commission merchants of San Francisco, who also own and operate several other vessels in the lumber, wood and coal traffic. The Homer with accommodations for 48 passengers will shortly make a trip to Seal Islands. The Carmel and Capistrano are lumber schooners exclusively, with a capacity of 750,000 feet each and no passenger accommodations.

The four vessels mentioned enjoy the reputation of composing the most efficient fleet of lumber vessels on the Coast, invariably carry full cargoes from each end of their respective runs, and render satisfactory service in every particular.

Pacific Merchant Marine

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Considering the development of coastwise commerce in the United States, we have much to be thankful for. To those enjoying its benefits, and others who fail to recognize the interconnection of a mercantile and defensive navy, nothing remains to be done for the future development of an American Merchant Marine. If such is the case, the defense of this country enjoys a unique and unenviable position. Coastwise and navigation laws of the United States form a concrete mass upon which has been built the greatest industrial system the world has ever known. Those same legislators who made the coastwise and navigation laws have also dealt with over-sea legislation. Sufficient time has elapsed to convince them of their own wisdom. If not prone to egotism, however, the following statistics are convincing evidence of the stimulus in shipbuilding and the increase in coastwise trade for the past few years. In 1880 the gross tonnage of American merchant vessels amounted to 4,068,034 tons. In 1860, before the era of iron and steel ship construction, and under protection of ship subsidies, American merchant vessels aggregated 5,299,175 tons, and controlled 80% of the trade with foreign countries. Ten years previous England increased her ship subsidies, from which period began the rapid decline of the American merchant marine. In 1858 France had adopted ship subsidies and America lost 80% of the foreign trade, which continued to decrease until the opening of and during the Civil War, at the close of which, in 1865, foreign commerce depreciated 35%. A slight increase developed after the war, and continued until 1870. The upward tendency, however, was small, as but 35% of the foreign trade was being carried by American vessels. In 1868 Spain adopted subsidies, the following countries doing likewise: Belgium in 1873; Netherlands, 1877; Italy, 1878; Sweden, 1882; Norway, 1883; Germany, 1885; Argentine Republic and Brazil, 1886; Mexico, Australia and Japan, 1887; Canada, Russia, Chile, Portugal, Hungary and Trinidad, 1888. During this time American shipping interests declined rapidly, and continued so until the present time. And the United States is carrying 7.7 per cent of the over-sea traffic.

For the fiscal year ending June 30, 1908, 22,451 vessels with tonnage of 6,371,862 were engaged in coastwise trade in the United States. At the same time 1,553 vessels with a gross tonnage of 930,413 were engaged in the foreign trade.

Comparing the figures given for tonnage of wooden vessels in 1860 with iron vessels in 1907, the difference is 600,000 tons in favor of the year 1907; but in comparison with the tonnage of vessels engaged in foreign trade for 1908, the 600,000 tons remain to the credit of coastwise and navigation laws.

That shipbuilding has increased under the protection of the coastwise laws is shown by the following figures, which include sailing vessels, steam vessels, canal boats, and barges: When in 1905 there were 1,102 vessels built with 330,318 gross tons, in 1908 there were 1,457 vessels with a gross tonnage of 614,216, which is the largest annual tonnage output in the history of United States shipyards. The nearest approach to the latter figures occurred in the fiscal year ending June 30, 1885, when under ship subsidies the output of American shipyards was 583,450 gross tons. The increase in American merchant shipping for the fiscal year ending June 30, 1908, was 426,651 gross tons, the nearest approach to which was also made in 1855 when the increase amounted to 409,099 gross tons.

Despite these startling figures, statistics and efforts to encourage shipping as an indirect means of increasing the power of the United States, extending the trade thereof, to encourage the art of building and sailing of ships, and providing seamen; and last, but not least, an auxiliary defense; Congress has persistently avoided the development of the American merchant marine.

Trade is but the natural stimulant of industry; and to be overbalanced in trade is to be overbalanced in power. These are facts material and visible, and no less real than the navy, the postoffice or custom house. Admitting that all other details of the Government are complete, is a merchant marine an artificial want? Are the present prosperous conditions of the United States teeming with mischief for the future? Is the problem of the American merchant marine more difficult to solve than the progress made in the past 133 years? Have we no means of investigating the relation of events in the history of other countries? Or is the aspiration something of which we are incapable? If so, we should stop at once, and begin immediately where we left off.

It is indeed clear that present commercial interests have not kept pace with the industrial development; nor does it follow that all questions are merged in an efficient merchant marine; but it can be said advisedly that the destiny of the United States rests in the absolute control of its own commerce.

That the effectiveness of the navy must depend on the maintenance of merchant shipping, remains undisputed. Every event in the past history of the United States has demonstrated this fact. The next offensive act against this country by any foreign nation will bring the fact home with a desire to forget the price it has cost. The aggressor may hold temporary control, but the price to the United States will remain the same; and the problem of an American merchant marine will be settled for all time, for then we will have learned the importance of its development.

The comparative growth of the tonnage of merchant navies in some of the foreign countries above quoted, from 1860 to 1907, has been as follows:

American	from 5,299,175 to 6,938,794
English	from 5,710,968 to 18,709,537

Belgian	from	33,111	to	185,630
Italian, 1870	from	1,012,164	to	1,321,131
Swedish, 1870	from	346,862	to	921,024
Norwegian	from	558,927	to	1,960,589
German, 1870	from	982,355	to	4,232,145
French	from	996,124	to	1,779,214

The total documental merchant shipping of the United States at the close of the fiscal year June 30, 1908, comprising 25,425 vessels of 7,365,445 tons, is the greatest in the history of the United States, and is larger than the tonnage under any other flag except the British, the next nearest approach to American tonnage being Germany. These comparative facts may be verified by reference to the table above, and must be qualified by the observation that over one-third of our merchant tonnage is employed on the Great Lakes, and the great bulk of the remainder is employed in purely domestic transportation.

During the year we had but seven steamships regularly crossing the Atlantic to Europe, two of which have recently been transferred to a foreign flag. Crossing the Pacific we have but six steamships, and we have no steamships under the American flag on route to South America below the Isthmus and the Caribbean Sea, to Australia, or to Africa.

The decade following the war with Spain has been the period of greatest activity our shipyards have ever known. During these ten years the total output has been 4,295,451 gross tons, while during the ten years which culminated in the panic of 1857 the total output was 3,904,233 gross tons. The American shipbuilding industry is accordingly, again, absolutely as great as it was in the years when the United States was a close competitor with the United Kingdom for first place on the sea. This stimulus occurred during the operation of the postal subvention act of March 3, 1845, and which was abandoned in 1858. Relatively, however, shipbuilding in the country has taken its place in the ranks of secondary industries, and which it retains chiefly through the large amount of naval construction not included in the figures just given. In the meantime shipbuilding in Great Britain has increased sixfold within half a century. For several years past we have virtually ceased to build ships for the foreign trade, and the industry owes its existence almost wholly to the laws restricting domestic transportation by water to vessels built in the United States.

THE AQUATIC IMPROVEMENT ASSOCIATION OF SAN FRANCISCO.

On December 11, 1908, a number of public-spirited gentlemen interested in pleasure and small commercial craft on the bay, also those interested in the development of aquatic pastimes, fishing and bathing, met in the Hall of Justice and discussed the superior advantages of the harbor for aquatic sport of every description, and the undeveloped possibilities whereby, at reasonable expense, San Francisco bay could be improved, thereby adding materially to the fame and susceptibilities of this wonderful harbor, to the extent of developing a resource of the State, which, like many other of our resources, has never been appreciated.

The meeting was called to order by Temporary Chairman C. M. Farrell and Secretary pro tem W. H. Mead. The following named gentlemen were present and signed the roll of membership: C. M. Farrell, Wm. H. Mead, J. W. Staley, Chas. Wilson, T. J. Fitzpatrick, W. H. Herrington, J. E. Scully, T. S. Williams and J. J. Cronin.

- Subsequent meetings were held January 26, February 5, February 26 and March 12. In the interim efficient service was rendered by the various committees appointed. Conferences were held with the Board of Supervisors, the United States authorities and others. Encouragement and data were obtained sufficient to warrant the preparation of elaborate plans designed by newly-elected member J. M. Punnett. The plans show a proposed water park to be built by the municipality, adjoining Fort Mason, on the south shore of the entrance to the harbor. Incorporated in the plans are a harbor for pleasure boats, aquarium, swimming pool, fishing wharf, housings for rowing craft, music stand, and children's sections, which, if completed as designed, would rival the celebrated aquatic parks of the old world and later ones of the United States.

The extensive marine aquariums and water parks attached to the world-famous biological stations of Naples, Brighton, Berlin, Hamburg, Crystal Palace and elsewhere in Europe all receive their just share of the tourist patronage; and a visit to the wonderful exhibitions at these places forms a subject of absorbing interest in the tourist's account of his travels. Americans, however, take pardonable pride in the aquarium in old Fort Clinton, on the Battery, in New York, managed since 1903 by the New York Zoological Society. The aquarium and park is one of the largest and finest in the world. When the Pacific Coast realizes the present importance of its fisheries, wherein are engaged 226 vessels of 10,382 tons, giving employment to 19,658 people, with invested capital of \$12,839,949, and that the annual product is \$6,680,866, and that these figures are exceeded only, collectively, by the south Atlantic states, Gulf states, middle Atlantic states, and New England states of the United States, and as a whole in foreign countries by Canada, Japan, Norway, Spain and Great Britain, every meritorious effort to increase our marine resources, whether for pleasure or profit, should receive the support of every individual interested in the progress of Pacific Coast industries.

The last meeting of the Aquatic Improvement Association was held in the chambers of Judge E. P. Mogan, in the Grant building, on Monday evening, April 12, F. G. Phillips presiding and W. L. Busletemp secretary. The meeting was representative of aquatic interests. Reports were received from Supervisors Rixford and McLeran. Communications were read containing the endorsement of the Corinthian Yacht Club, the Mission Promotion Association, the Polk Street District Improvement Club, and numerous other civic and commercial organizations.

The report of the committee on constitution and by-laws was read and finally unanimously adopted. The plans of Mr. Punnett were exhibited and unanimously adopted. It was decided to keep the charter roll of membership open until the next meeting, to be held on Friday evening, May 14. The following additional names were placed on the roll of membership: F. G. Phillips, W. L. Bush, W. F. Wood, J. M. Punnett, W. L. Spencer, R. C. Ward, J. G. Gallagher, Chas. Creighton, R. H. Ohea, Geo. James, Edw. Lynch, H. K. McKevitt, W. A. Remensperger, P. T. Carroll, James Wilson, O. G. Bell, W. J. Hogg, N. Prendegast, W. F. Wood, Supervisor Rixford, Thos. C. Butterworth, Paul Carroll, Jos. Sundee, O. Kottner, J. J. Driscoll, E. Baraty, M. Craven, T. C. Todt, J. Davis, R. C. Ward, Dr. T. L. Mahoney, W. O. Patch, A. G. Deel, and John Phillips.



PLEASURE CRAFT



THE SCHOONER YACHT LUKA.

The accompanying cut is of the 140-foot schooner Luka, owned by Captain Miller of Honolulu, and sailed by him under the pennant of the Hawaiian Yacht Club.

The Luka was built in New York and used for some time as a pilot boat. She proved to be very speedy, and as she was suitable in every way for a cruise, was bought and fitted up as a yacht by parties intending to make a round-the-world cruise. She was sailed as far as Honolulu, but owing to a disagreement arising among the owners the cruise ended at that port, and she was bought at auction by a firm in the guano trade between the Hawaiian Islands and Lason. After making two trips the new owners found that she was too small for their purpose, and she was again auctioned off and bought in at a very reasonable figure by Captain Miller.



THE SCHOONER YACHT LUKA

She was put into the hands of Sorrenson & Lisle, the local boatbuilders, and entirely refitted in a very elaborate style, and is now one of the finest yachts on the Pacific. Her cabins are entirely finished in Koa or Hawaiian mahogany. She has an electric light and refrigerating plant, hot and cold running water in all of her five staterooms, and is in fact modern in every respect.

Her hull construction is white oak and eastern cedar throughout, and she is built to stand the roughest usage.

The members of the Hawaiian Yacht Club are much elated over this addition to their already large fleet, and as she will undoubtedly be entered in the next trans-Pacific race, it is not at all unlikely that she will carry off the cup.

The schooner yacht Magic has been purchased by Captain Barkus and is on Klarman's ways undergoing extensive repairs. Frank Bartlett, the well known yachtsman, is to sail on the Magic this season.

Com. Frank Stone had a party out on the Marian last Sunday and cruised about the bay, finally anchoring off the Corinthian Club, where a luncheon was served. The Marian has proven herself an excellent sea boat and is especially good on the wind.

The various clubs about the bay are busy arranging their sailing programs for the coming season. We hope to publish these in an early issue.

The Pacific Merchant Marine, in undertaking to publish the current yachting news, most earnestly desires the support of our local yachtsmen, and word of anything going on in the yachting line which may be of general interest will be heartily appreciated.

The Pacific Motor Boat Club, contrary to a rumor recently circulated that it intended to disband, is doing better than ever, and the roll of members has largely increased. The opening will take place some time in May, and preparations for a series of races are now being made.

Pete Swanson's secret is out at last! The sixty-foot launch now building at his shop in Tiburon is for a Mrs. Allen of Honolulu, and is to be used as a ferry between Mrs. Allen's summer home at Pearl Harbor and Honolulu. The boat is to be equipped with a 100 H. P. Standard engine and will make the trip to the Islands under her own power.

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The San Francisco Yacht Club will hold its opening jinks on Saturday, May 8, at the clubhouse in Sausalito and on the following Sunday morning the boats will line up for their first scheduled cruise.

* * *

The yawl Iola, formerly of the California Yacht Club and the sloop Mary, formerly of the Vallejo Yacht Club, are both enrolled in the San Francisco's fleet for the coming season.

* * *

Mr. Harry Diamond of the Corinthian Club has made several alterations in his sloop Aeolus. He has had the center board and casing removed, thereby obtaining a largely increased cabin space and is substituting a wheel for the tiller.

* * *

John E. Hax has kept his large cruising motorboat in commission throughout the winter, and has her in good shape to make the trip to Sacramento for the water carnival on the twenty-fourth of this month.

Speaking of the water carnival, it will be well worth the trip to Sacramento. There will be races of the different classes of motorboats, swimming and rowing con-

tests, night and day fireworks, together with everything that goes toward making up a Venetian water carnival.

Sacramento will be in gala attire and is making great preparations to welcome her sister cities of the Coast. It would be well for those intending to make the trip to engage their accommodations in Sacramento beforehand, as a large crowd is expected to attend and the hotel facilities will be taxed to the utmost.

There will be a good many entries in the motorboat races from about the bay, most notable among which will be the Konbetti, owned by Prentiss Gray. This boat has beaten everything on the Coast up to the present time.

Unfortunately few of the yachts are now in commission or there would undoubtedly be a large attendance of the yachtsmen, which would add greatly to the success of the carnival.

The Sacramento Motor Boat Club is rapidly making itself felt in boating circles on the Coast and has a large and enthusiastic membership, made up of some of the most prominent citizens of the river city. The management of the coming carnival rests largely with this club, and of the success of the venture there is not the slightest doubt. It will in all probability be made an annual affair.

FOR SALE.



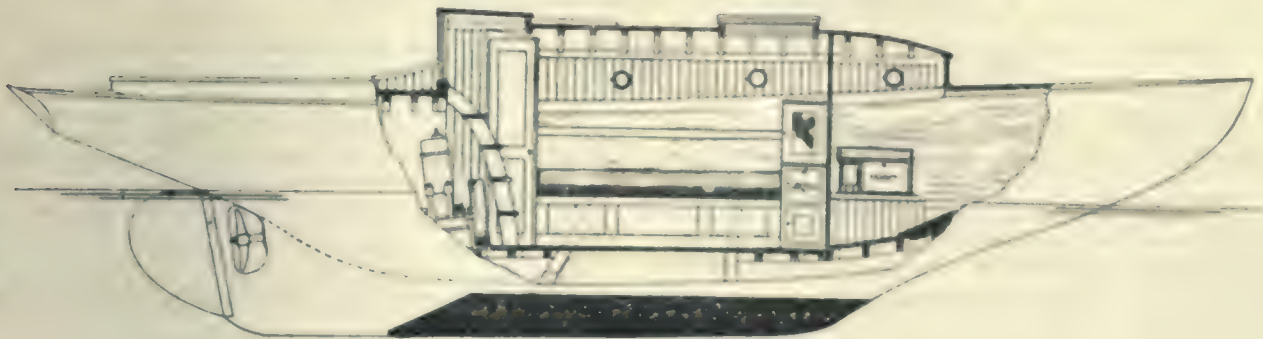
The 50-foot waterline schooner yacht Marian was built by day's work for a capitalist of San Francisco, and should be seen to be appreciated. It is equipped and built in detail for ocean cruises or short pleasure trips. Nothing remains to start the Marian for a long or short voyage, except the provisions required. Yachting circles about the

bay are anxiously watching the possibility of an outside buyer, as the Marian is considered to be the most promising addition to the yachting fleet in this harbor for many years. Inspection is invited.

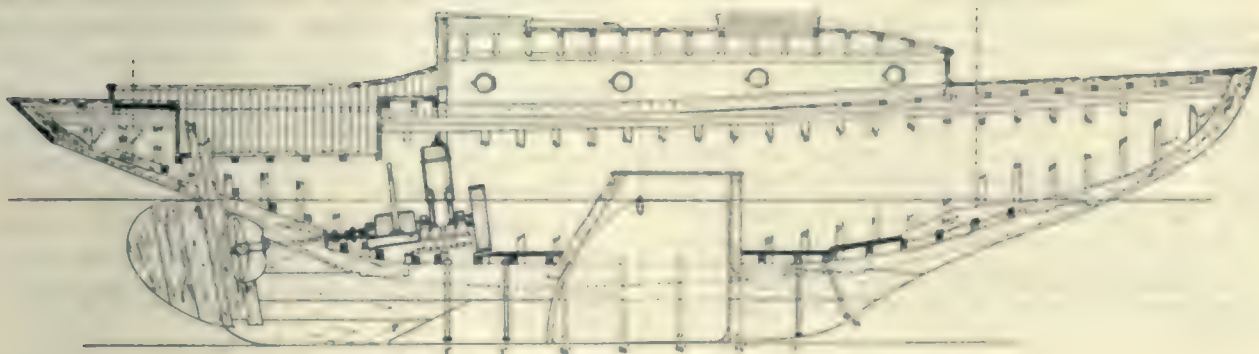
Inspection or communication, Stone and Van Bergen, foot of Baker street, San Francisco, Cal.

Sold at Steacy's News Depot, 3 Stuart St.

THIRTY-FOUR FOOT AUXILIARY YAWL



CABIN ARRANGEMENT



CONSTRUCTION PLAN SHOWING AUXILIARY INSTALLATION

THIRTY-FOUR FOOT AUXILIARY YAWL.

The craft shown above was designed by Stuart B. Dunbar for use on San Francisco Bay, and for outside cruising. The auxiliary equipment consists of a 5-horse power single cylinder "Standard" engine, and is so placed that it does not interfere with the cabin accommodations of the boat, and yet is easily accessible when needed. The propeller is two-bladed and twenty inches in diameter, and will decrease the speed of the boat very little while under sail, the power shown being expected to develop a speed of about five miles an hour, amply sufficient to buck the average tide and bring the boat to her moorings in a flat calm.

This type of boat has proved its practicability in Eastern waters and it is to be hoped that before long the Western yachtmen will realize that a little power in a yacht is a very handy thing in case of emergency. At present there are only a couple of boats on the bay thus equipped and the installation is far from being modern and practical.

The general dimensions are:

L. O. A.	34 feet 6 inches
L. W. L.	25 feet
Beam Midship	10 feet
Freeboard bow	3 feet 6 inches
Freeboard least	2 feet 5 inches
Freeboard stern	2 feet 9 inches
Sail area	(about) 600 square feet
Headroom	6 feet

We are publishing this week Circular No. 188, Department of Commerce and Labor on Equipment of Motor Boats. We trust that this will be appreciated, and taken to heart by all you motor-boat men. Unfortunately the average man operating a pleasure launch or motor-boat is in a blissful state of ignorance as to the rules of the road, necessary equipment, etc., and a careful study of this circular will not be amiss.

For some reason impossible to explain, it has come to be the general impression that anyone can run a motor-boat. Now this is radically wrong. Anyone can learn to operate a gas engine in a comparatively short time, but no one should be allowed to take out a motor-boat without a proper knowledge of the rules of the road, equipment, etc. This knowledge is absolutely essential, not only for the protection of the operator, but for the safety of others, and it will be a happy day for yachtmen and others who are frequently compelled to dodge the ignorant and foolhardy launch operator when the law is properly enforced.

EQUIPMENT OF MOTOR BOATS.

March 25, 1909.

To Collectors of Customs and others concerned:

The Department has received inquiries as to the equipment required by the act of June 7, 1897, and section 4426, Revised Statutes, to be carried on small motor vessels. In order to insure uniformity in the enforcement of this law, you are informed that small motor vessels navigated in your district should be equipped as follows:

Whistle, Fog Horn, and Bell.

All motor vessels, without regard to size or use, must be provided with an efficient whistle, an efficient fog horn, and an efficient bell. No size or style of whistle, fog horn, or bell is prescribed, provided it is available and sufficient for the use for

which it is intended. The word "efficient" must be taken in its ordinary sense, considered with reference to the object intended by the provisions in which the word appears, namely, the production of certain signals. The power to operate the whistle is not prescribed, but it must be of such a character as to produce a "prolonged blast," which is defined as of from four to six seconds duration.

Lights.

When navigated between sunset and sunrise, they must carry regulation lights, namely:

1. A bright white light at the bow or head of the vessel.
2. A green light on the starboard side and a red light on the port side provided with proper screens. The side lights may be so affixed to the coaming or to the sides of the deck house as to be properly screened, provided the lantern is backed with metal. Whenever the green and red side lights can not be fixed, they must be kept lighted and ready for use as provided by article 6 of the act of June 7, 1897.

The law does not appear to permit the use of a three-color "combination" light.

3. A white light aft, showing all around the horizon, to range with the head light.

Copies of Rules.

Such vessels are also required to have on board two printed copies of the rules which must be observed by them, which rules will be furnished by local inspectors of steam vessels on request.

Life-Preservers.

All such vessels of 15 gross tons or less engaged in carrying passengers for hire, in addition to the equipment above stated, are required to carry one life-preserver for each passenger carried and shall be operated only in charge of a person duly licensed by the local inspectors of steam vessels. Such vessels when used only as private pleasure boats and not at any time engaged in the carriage of passengers for hire are not obliged to comply with the provisions of law in regard to life-preservers and licensed operators. (The life-preservers must be of the sort prescribed by the regulations of the Board of Supervising Inspectors. They must bear the United States inspectors' stamp.)

While the law does not require it, the Department recommends, in the interest of safety to life, that a life-preserver for each person on board be carried on all motor boats, regardless of size or occupation.

Documenting, Inspection, Etc.

All motor boats of over five net tons engaged in the carriage of freight or passengers for hire must be documented; that is to say, licensed by the collectors of customs. (Vessels under five net tons are not documented in any case.) The license of the vessel obtained from the collector of customs (designated a document) is additional to and must not be confounded with the license required for the operator of a motor boat of fifteen gross tons or less carrying passengers for hire.

Motor vessels of over fifteen gross tons engaged in the carriage of passengers or freight for hire must also be inspected by the United States local inspectors of steam vessels and must carry a licensed engineer and a licensed pilot.

Documented vessels must have name and home port on stern and name on each bow. Official measurement is necessary only in case of vessels requiring to be documented.

While the law does not require it, the Department recommends that the name be conspicuously displayed on undocumented motor boats.

HERBERT KNOX SMITH, Acting Secretary.

THE INDIANA'S POSITION.

The steamer Indiana lies a mile northeast of Tosco, 100 feet from the shore on large boulders from engine-room forward; aft sand bottom, and between decks upholds 2 and 4 tide ebbs and flows; forward hold, engine and fire rooms leaking, but under control; after hold still dry, slight movement of vessel and damage to bottom probably increasing. Hope to save 700 tons of cargo, including 5000 bags coffee.

The steamer City of Sydney left Magdalena Bay April 12 with most of the Indiana's perishable freight on board. The dry cargo will be placed on board the steamer Melville Dollar.

TIDE TABLE TO WEEK ENDING SATURDAY, APRIL 7.
Golden Gate Entrance to San Francisco Bay.

A P R I L										
Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
Full	Mon.	5	5:20	1.4	11:12	4.9	17:28	1.3	23:48	5.2
	Tues.	6	5:55	1.1	12:15	4.9	17:56	1.6		
	Wed.	7	0:02	5.2	6:26	0.8	13:00	4.7	18:30	2.0
	Thur.	8	0:26	5.1	7:00	0.6	13:53	4.4	19:04	2.4
	Fri.	9	0:50	5.2	7:45	0.5	14:54	4.2	19:42	2.8
S 3rd. quar.	Sat.	10	1:13	5.2	8:35	0.3	16:10	4.0	20:22	3.2
	Sun.	11	1:45	5.2	9:30	0.3	17:32	4.2	21:28	3.5
	Mon.	12	2:32	5.1	10:32	0.2	18:42	4.3	22:35	3.6
	Tues.	13	3:50	5.0	11:35	0.2	19:34	4.5		
	Wed.	14	0:02	3.5	5:30	4.9	12:38	0.1	20:15	4.8
P E New	Thur.	15	1:15	3.1	7:00	5.1	13:36	0.1	20:48	5.1
	Fri.	16	2:14	2.4	8:08	5.3	14:30	0.2	21:24	5.4
	Sat.	17	3:05	1.7	9:12	5.4	15:25	0.4	21:56	5.7
	Sun.	18	3:55	1.0	10:08	5.5	16:10	0.7	22:30	5.8
	Mon.	19	4:42	0.4	11:05	5.6	16:52	1.0	23:05	6.0
N	Tues.	20	5:23	0.0	12:04	5.4	17:36	1.5	23:40	6.1
	Wed.	21	6:10	-0.3	13:04	5.3	18:18	2.0		
	Thur.	22	0:20	6.0	7:02	-0.5	14:07	4.9	19:02	2.4
	Fri.	23	1:00	5.9	7:55	-0.5	15:20	4.5	19:53	3.0
	Sat.	24	1:44	5.6	8:53	-0.3	16:35	4.5	20:50	3.3
1st. quar.	Sun.	25	2:30	5.4	9:54	-0.1	17:46	4.6	22:02	3.6
	Mon.	26	3:33	4.9	10:55	0.1	18:50	4.6	23:35	3.6
	Tues.	27	4:52	4.7	11:55	0.3	19:40	4.9		
	Wed.	28	1:00	3.4	6:12	4.5	12:48	0.5	20:18	5.1
	Thur.	29	2:00	3.0	7:24	4.5	13:35	0.7	20:50	5.3
A	Fri.	30	2:42	2.4	8:25	4.5	14:24	1.0	21:17	5.3
	M A Y									
E	Sat.	1	3:16	2.0	9:18	4.6	15:05	1.2	21:45	5.3
	Sun.	2	3:48	1.5	10:04	4.6	15:40	1.5	22:08	5.4
	Mon.	3	4:20	1.1	10:45	4.8	16:10	1.7	22:24	5.5
Full	Tues.	4	4:46	0.7	11:28	4.7	16:45	2.0	22:47	5.5
	Wed.	5	5:21	0.3	12:15	4.7	17:20	2.3	23:15	5.5
	Thur.	6	6:00	0.0	13:06	4.6	17:55	2.7	23:38	5.5
	Fri.	7	6:40	-0.2	14:04	4.5	18:35	3.2		

Time used, Pacific Standard, 120th Meridian W.

0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.

N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	18	Mar. 30	Buoys No. 10, 12, upper harbor gone, vessels crossing bar now passings of bar buoys leaving No. 2 1000 Feet away.
Willapa Bay	27	Apr. 1	Dep'h at M L W in channel at Raymond 15 feet.
Columbia River	24	Feb. 6	
Nehalem River			
Tillamook Bay	13	Mar. 2	Channel shifting about $\frac{1}{4}$ mile to southward is now $\frac{1}{8}$ mile south of the whistling buoy.
Yaquina Bay	13	Mar. 12	Channel not changed.
Siuslaw River	5	Apr. 6	Channel gone to north end of jetty and beacon on high bank marks channel now.
Umpqua River	9	Apr. 1	Channel to northward of old established ranges.
Coos Bay	17	Apr. 6	Soundings today show a ridge abreast of black buoy off end of jetty which shoaled last 2 days.
Coquille River	9	Mar. 26	2 buoys gone; channel in middle between jetties.
Rogue River.			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	8	Apr. 2	At present channel is southwest.
Humboldt Bay	18	Apr. 1	North channel 18 ft; very narrow and crooked, difficult to navigate for large vessels; about 13 feet in south channel.
San Pedro Bay	20	Feb. 24	No change in channel.
San Diego Bay	26	Apr. 3	No change in channel.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS.

Reports from Alaska state that the ice is breaking, and moving out of Cook's Inlet and that that great arm of the Northern Sea will be open to navigation by April 25, and possibly a week sooner.

Vessels entering and leaving Grays Harbor formerly passed to the north of the bar buoys, but at present are passing to the south close by, leaving No. 2 1,000 feet away. Beacons Nos. 10 and 11 in new dredged channel, upper harbor, are gone.

The red spar buoy marking the end of the south jetty is reported adrift since March 30. The Lighthouse Department also gives notice that Blunt's Reef Lightvessel No. 83 will be replaced temporarily about April 20, by relief vessel No. 76.

Captain Lawson of the schooner Americana reports to the Branch Hydrographic office at Port Townsend, Washington, that on March 5, 1909, on a perfectly clear day with a smooth sea and calm weather, in latitude N. 29 degrees 47 minutes, longitude E. 142 degrees 33 minutes, he sighted a reef, about 800 feet long and 80 feet wide, lying in an east and west direction, with from 6 to 8 feet of water on it. His chronometer was found to be correct upon arrival at Cape Flattery 31 days later.

J. C. BURNETT, Lieut. U. S. N., in charge.

NOTE.—This position lies about 150 miles to the northwest of the Bonin Islands.

CIVIL SERVICE EXAMINATIONS.

The United States Civil Service Commission announces that the following examinations will be held at San Francisco, Cal., at an early date:

Architectural and structural steel draftsman.

Assistant chemist (male), office of public roads, Department of Agriculture.

Mechanical assistant, with knowledge of refrigerating machinery, Department of Agriculture.

Photo engraver, Philippine service.

At Orland, Cal., an examination will be held on May 26, 1909, for the position of junior clerk in the reclamation service. For application blanks for the junior clerk examination, applicants should address the board of examiners, reclamation service, at Orland, Cal.

For application blanks for any of the other positions mentioned above, address Secretary twelfth civil service district, postoffice building, San Francisco, Cal.

SHIPBUILDING NOTES.

Union Iron Works.

S. S. Col. Drake on Hunter's Point drydock for miscellaneous repairs.

S. S. Ventura on Hunter's Point for miscellaneous repairs, cleaning and painting.

S. S. Doris on floating dock for cleaning and painting.

S. S. Santa Rita at the works for general overhauling.

S. S. Monticello and Arrow on floating dock for cleaning and painting.

S. S. Admiral Sampson on dock Thursday for cleaning, painting and hull work.

Risdon Iron Works.

Work on the Admiral Sampson will be completed about April 20.

Work on the fireboats is progressing rapidly and one of them will be launched in about three weeks.

Making new crank shaft for the S. S. Roanoke. Putting in reverse bar and floor plates in boiler space, and making two fresh water tanks with a capacity of 10,000 gallons.

Gorham Engineering Works.

Overhauling six cylinder gas engine belonging to the launch Konocti.

Moore & Scott.

The British steamer Strathdee, which was rammed by a Government vessel at Magdalena bay, is having several spaces of shell plating renewed. It was at first thought that the Strathdee would have to go on the drydock, but the work is being completed in the stream.

The dredger Uncle Sam, which was damaged by fire in Oakland creek some months ago, is on the Oakland drydock undergoing extensive repairs.

The work on the S. S. San Mateo is progressing rapidly and it will be completed about May 12.

Three fishing tugs, belonging to J. Paladini, are on the Oakland ways receiving a thorough overhauling, cleaning and painting.

United Engineering Works.

Building steel barge for the Standard Oil Company to be used about the bay points. It is to be 75 feet in length and 18 feet beam, equipped with a hundred horse power Doak gas engine. Will cost \$25,000.

CHANGES OF SHIPS' OFFICERS.

Charles Dexter, formerly of the S. S. Alliance, has filled the vacancy on the S. S. Breakwater, caused by the resignation of P. Peterson.

H. Barker relieved Geo. Loehardt as chief engineer. H. Miller relieved B. Connely as first assistant engineer, and F. Mitchenson relieved J. Long as second assistant engineer of the S. S. F. S. Loop.

T. Stewart relieved Second Assistant Engineer M. Johnson temporarily on the S. S. Daisy.

First Assistant Engineer F. K. Peel laid off the S. S. Senator temporarily, his place being taken by C. W. Munday.

First Officer D. Adams left the S. S. Missourian. His place was taken by Second Officer L. Reed. C. Ayre went out as second officer.

H. Fraser left the S. S. Buckman as second assistant engineer. E. Griffin went out as third assistant.

S. Lindo relieved H. Rakow as second assistant engineer of the S. S. Manchuria.

D. O'Hearn relieved G. Spencer as junior engineer and I. Vanderslice relieved O. Lucas as junior engineer of the same vessel.

T. Luttrell has severed his connection with the Pacific Coast S. S. Company as second officer of the S. S. City of Puebla, and will be succeeded by C. Peterson, formerly third officer of the same ship. William Dehne, promoted from fourth to third officer, and Mr. Winslow will take his place.

Captain M. Kalmin has been relieved of the command of the Pasadena by M. S. McGovern.

A modern principle of education is if you are in doubt upon a subject the next best thing to know is where to look for definite information; the proper application of this principle in business transactions is an indication of progress, and must bring about the same degree of success in the latter case as in the former, and has made the name of Weeks, Emerson & Howe, San Francisco, so well identified with the Ship Chandlery business on the Pacific Coast.

TRADE NOTES.

Herzog & Dahl, formerly located at 104-112 Howard street, are now permanently located in their fine new store at 150 Steuart street. Coincident with the occupation of the new place it marks their ninth anniversary in the electrical field, during which time they have gained an enviable reputation for good work and fair dealing.

With a few exceptions, nearly every steam vessel built on this Coast has had its electric plant installed or remodeled by them.

In connection with their electrical supply and contracting business, they maintain a first-class repair shop, well equipped for making repairs to all kinds of electrical apparatus. They also represent Messrs. Carlisle & Finch of Cincinnati, manufacturers of searchlights, and the De Laval Steam Turbine Company of Trenton, N. J., turbine generating sets for marine plants, and also handle a number of electrical devices for Naval and Marine purposes.

* * *

Smooth-On is an article indispensable to the manufacturer and user, for the reason of its peculiar chemical properties, namely, of metallizing and of expanding when metallizing, and it can be prepared to act quickly or slowly, according to the requirements of particular uses.

These properties make Smooth-On a valuable substance in the making of chemical iron cements. To this subject the chemist of the Smooth-On Manufacturing Co. has given careful study for fifteen years, and has succeeded in compounding the valuable iron cements known so generally throughout the world as Smooth-On Iron Cements.

Smooth-On Castings is a chemical iron compound prepared in powdered form and used by mixing with water to the consistency of stiff putty. When in this state it is a chemical plastic iron that will metalize in a few hours and become a part of the casting to which it is applied. When hard it has the same color and appearance as cast iron, which makes it valuable for smoothing over, and filling up blowholes in iron or steel castings. One pound of Smooth-On Castings will fill ten cubic inches.

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LIFE-SAVING STATIONS ON THE PACIFIC COAST OF THE UNITED STATES

Name.	State.	Locality.	Lat., North.			Long., West.		
			Deg.	Min.	Sec.	Deg.	Min.	Sec.
Waadah Island.....	Washington.....	.....	48	22	40	124	35	30
Gray's Harbor.....	".....	Just south of Grays Harbor light.....	46	53	15	124	07	15
Willapa Harbor.....	".....	Near lighthouse boat landing.....	46	43	00	124	03	00
Ilwaco Beach.....	".....	Thirteen miles north of Cape Disappointment.....	46	27	50	124	03	25
Cape Disappointment.....	".....	Bakers Bay, one-half mile northeast of light.....	46	16	40	124	03	00
Point Adams.....	Oregon.....	Three-fourths miles southeast of Fort Stevens.....	46	12	00	123	57	00
Tillamook Bay.....	".....	.....	45	33	30	123	57	00
Yaquina Bay.....	".....	About one mile south of harbor entrance.....	44	35	30	124	03	54
Umpqua River.....	".....	Near entrance of river, north side.....	43	42	00	124	10	30
Coos Bay.....	".....	Coos Bay, north side.....	43	22	50	124	18	00
Coquille River.....	".....	In town of Bandon.....	43	07	00	124	25	00
Humboldt Bay.....	California.....	Near the old abandoned lighthouse tower.....	40	46	00	124	13	00
Arena Cove.....	".....	Four miles south of Point Arena light.....	38	54	50	123	42	30
Point Reyes.....	".....	Three and one-half miles north of light.....	38	02	20	122	59	30
Point Bonita.....	".....	Near Point Bonita light.....	..	..	..	..	..	..
Fort Point.....	".....	Three-fourths mile east of light on Fort Winfield Scott.....	37	48	10	122	27	50
Golden Gate.....	".....	On beach in Golden Gate Park, San Francisco, three-fourths mile south of Point Lobos.....	37	46	10	122	30	30
Southside.....	".....	Three and three-eighths miles south of Golden Gate Life-Saving Station.....	37	43	18	122	30	18
Nome.....	Alaska.....	At Nome.....	64	30	00	165	23	00

DISTRESS SIGNALS

In the daytime—

1. A gun fired at intervals of about a minute.
2. The International Code signal of distress indicated by N. C.
3. The distant signal, consisting of a square flag, having either above or below it a ball or anything resembling a ball.
4. Rockets or shells as prescribed below for use at night.
5. A continuous sounding with a steam whistle or any fog-signal apparatus.

At night—

1. A gun fired at intervals of about a minute.
2. Flames on the vessel (as from a burning tar barrel, oil barrel, etc.).
3. Rockets or shells bursting in the air with a loud report and throwing stars of any color or description, fired one at a time at short intervals.
4. A continuous sounding with a steam whistle or any fog-signal apparatus.

All officers and employees of the Life-Saving Service will hereafter recognize any of these signals when seen or heard as signals of distress and immediately proceed to render all possible assistance.

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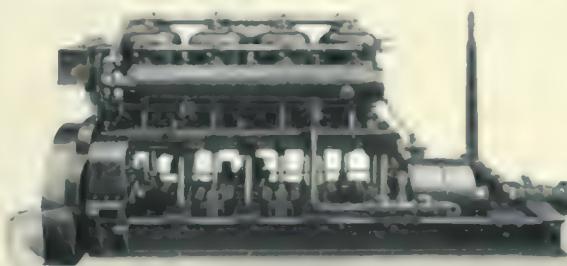
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Alameda, Cal.



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OF OUR INDUSTRIAL FUTURE

PACIFIC MERCHANT MARINE

SATURDAY, APRIL 24, 1909

VOL. II

NO. 6

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American Shipping (Continued)
Alexander R. Smith

Progress of the Panama Canal

Editorial

Yachting and Motor Boating

Marine Notes of Pacific Coast Ports

Pacific Coast Vessels (Illustrated)
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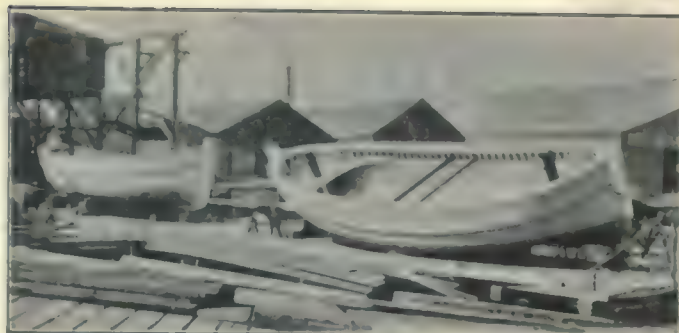
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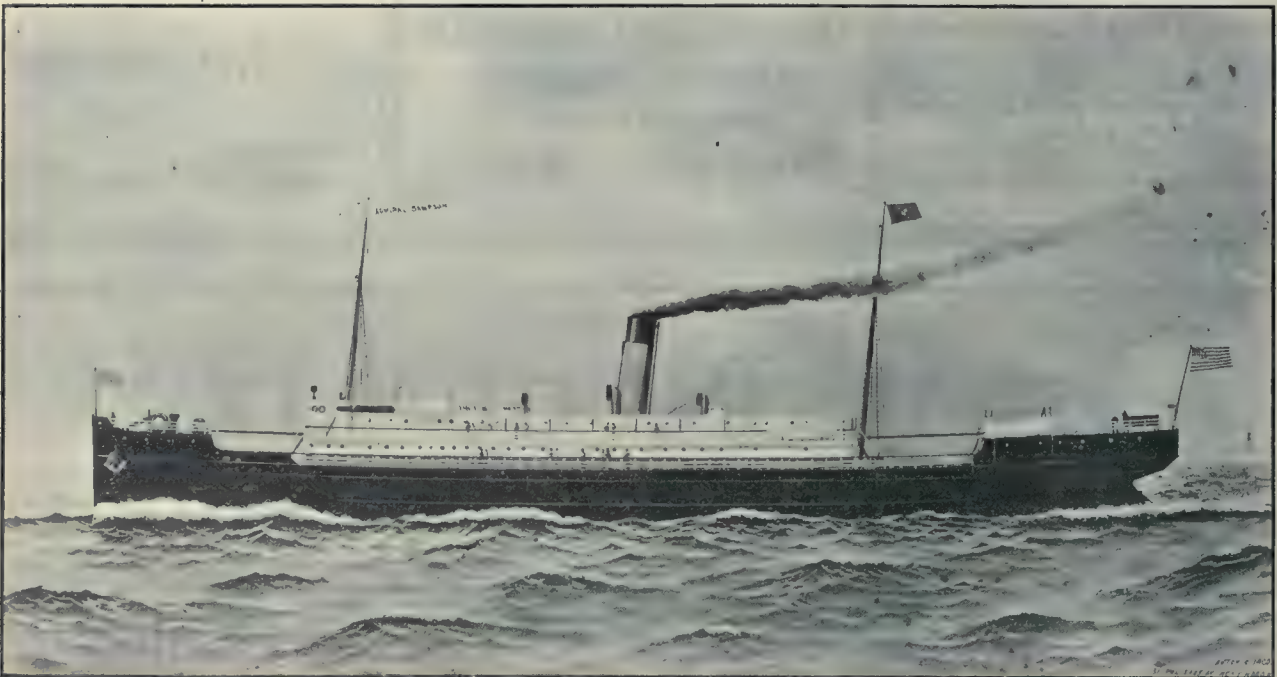
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Volume II

SATURDAY, APRIL 24, 1909

Number 6

AMERICAN SHIPPING

By ALEXANDER R. SMITH

(CONTINUED)

Prominent Features of Recent Subsidy Bills.

The first of the bills proposed by Senator Hanna and Representative Payne provided for the admission to American registry of such foreign-built vessels as were, at the time of the bill's enactment, owned by American citizens and American corporations, and it also included such vessels as were being constructed abroad under contract for American citizens, on condition that they be built in the United States equal tonnage to that so admitted—a measure planned somewhat more broadly upon the lines of the Cockran bill of 1892, in respect to the admission of foreign-built vessels. In the first bill it was provided that these foreign-built vessels so admitted should enjoy the same amount of compensation that was given to American-built vessels. Later the bill was so amended as to limit the payments to foreign-built vessels to one-half the amounts paid to American-built vessels of the same size and speed. Finally, and with great reluctance, Senator Frye was induced to eliminate every feature that gave admission to foreign-built vessels from his bill. He stated, upon the floor of the Senate, in advocating his subsidy bill which passed that body on March 17, 1902, that it was inferior to the bill which he had last urged upon the Senate for the upbuilding of our shipping in the foreign trade, but that the eliminations made were in deference to a popular demand that he regarded as based upon a mistaken view of the intent and purpose of the measure, which, however, he felt constrained to yield to. This bill went to the House Merchant Marine and Fisheries Committee, where, at the succeeding session, late in February, 1903, it was voted upon and rejected, and so never went before the House for its consideration. The compensation provided in all of those bills was based upon tonnage and speed, being very carefully calculated upon the known extra cost of building and operating American vessels in competition with foreign vessels. The Frye bill that passed the Senate on March 17, 1902, was amended in the closing hours of the discussion so as to bar all vessels under one thousand tons from any benefits thereunder, an amendment that was regarded as unjust by the owners of the medium-sized sailing vessels engaged in the trade between the United States and other portions of the western hemisphere, and who felt that their vessels, which are almost wholly owned by individuals, and which they claimed were pioneers and promoters of our foreign trade, were entitled to a square deal—to the same consideration that was extended to the more costly corporation-owned steamships.

President Roosevelt Recommends a Maritime Commission.

With the defeat of the Frye bill in the House Merchant Marine and Fisheries Committee, nothing further was attempted until in his annual message to Congress in the December following, President Roosevelt recommended the appointment of a commission for the purpose of studying and investigating the subject. Such a commission, composed of five senators and five representatives, four of them Democrats and six of them Republicans, was ap-

pointed early in 1904, and for nearly a year it was busy in holding public hearings in the leading sea, lake and gulf ports of the United States. Its report and a bill to carry into effect its recommendations were laid before Congress in January, 1905.

Leading Features of the Commission's Shipping Bill.

This bill proposes to establish a volunteer national naval reserve of officers and men employed in the merchant service, to subsidize cargo carriers, sail and steam, to the amount of \$5.00 per gross ton per annum if engaged in the foreign trade and through moderate mail subsidies, to establish lines to Africa, Central and South America, the West Indies, to Australia and to the Orient. As originally drafted it proposed to greatly increase the tonnage taxes on all vessels, American and foreign, entering from foreign ports, and rebating the increase collected upon American vessels if they conformed to certain specified conditions. As the bill first came up for consideration in the Senate, in which body it passed on February 14, 1906, and as this feature was regarded as a revenue-producing measure, which could not originate in the Senate, it was eliminated. That bill is, at this writing, in the hands of the House Merchant Marine and Fisheries Committee. It should be said that this same committee reported favorably what was practically the same bill two years ago. Should all of those then members of that committee, who two years ago voted in its favor, vote now to report out this bill, it would be so reported. President Roosevelt strongly favored its passage and he was expected to send to Congress a special message on the subject of American shipping.

A Moderate Bill That Should be Speedily Passed.

This measure is a very moderate and just one. It is by no means a complete bill. Considering that 60 per cent of our entire foreign trade is with Europe, and that no provision is made in this bill for encouraging American ships to engage in that trade, except as itinerant cargo carriers, it must be apparent that it is, in a measure, tentative and somewhat experimental. Our transatlantic trade employs the finest ships afloat, ships most useful as auxiliary cruisers and scouts, invaluable to their several governments for naval needs in times of emergency, as was proven in the case of the four fine steamships of the American line during the Spanish-American war. Naturally, any measure making no provision for this valuable class of merchant steamships, is an incomplete one. Nevertheless, the omission of this class of vessels from the bill was not unintentional—it was regarded by the commission which prepared the bill as inexpedient, at this time, to attempt to cover that feature of our foreign trade or to provide for the class of vessels which it employed. The bill should be speedily passed, as it is a measure that would inaugurate an American maritime policy and eventually lead to the United States assuming its proper position as a maritime nation, besides placing at the hands of the Government in time of need a large number of vessels that would be found to be essential to the effective operations of our army and our navy.

Imported Shipbuilding Materials Duty Free.

Too great stress cannot be laid upon the fact that "all materials of foreign production which may be necessary

for the construction of vessels built in the United States for foreign account or ownership or for the purpose of being employed in the foreign trade, including the trade between the Atlantic and Pacific ports of the United States" are, under the terms of Section 12 and Section 13 of the existing tariff act, admitted into the United States free of duty, as are "all such materials necessary for the building of their machinery and all articles necessary for their outfit and equipment," as well as "all articles of foreign production needed for the repair of American vessels engaged in the foreign trade, including the trade between the Atlantic and Pacific ports of the United States." This admission of all such materials into the United States free of any duty precludes the honest assertion that a modification of the tariff in respect to materials employed in shipbuilding for our foreign trade is all that is necessary to enable our builders to build ships in this country as cheaply as they are built in foreign countries.

NOTES OF THE PANAMA CANAL.

The survey of the watershed of the Chagres river has been extended to the valley of the Trinidad, where a

ing the amount needed at the spillway mixing plant. The dipper dredge is developing the sand deposits at a depth of twenty feet or more, and cannot work to an advantage at a less depth. In the course of two weeks the old French suction dredge, which was found on the bank of the Chagres at Chagrecito, and is undergoing repairs at the Cristobal drydock, will be put in service at Nombre de Dios to assist in stripping the surface clay and silt from the sand. A new dredge with a clam-shell bucket erected on each end, built especially for the Nombre de Dios work, will be put in service some time during the present month, and the best sand to be obtained in that locality can then be handled in any quantities.

The work of driving piles on the Naos Island break-water trestle at the Pacific entrance has been resumed after about six weeks of enforced idleness, due to lack of piles. It is probable that the building of the break-water will continue without cessation from this time on.

The Dredge Marmot.

The Marmot, an old French ladder dredge of the Belgian type, was launched at La Boca shipways on March



RESIDENCE OF COL. GOUAS AT ANCON

This was Formerly the Yellow Fever Ward for White People During French Times

party is now operating about ten miles from the mouth of the river.

As the lock canal of the French did not take into consideration the water supply of the Trinidad and Gatuncillo rivers, since these rivers empty into the Chagres north of Bohio, no records of the run-off of their watersheds were kept by the French. The only gaugings made heretofore were those of the Walker Commission, covering a period of a few months only. For about twenty-two months stations have been in operation at Lagartera, about fourteen miles from the mouth of the Trinidad, and at a point on the Gatuncillo, about six miles from its mouth.

Diamond drill borings are being made along the Trinidad-Atlantic divide to determine the quality of the material in the ridges.

Sand Dredging at Nombre de Dios.

The sand that is being delivered at the Gatun spillway from the pits at Nombre de Dios is loaded on barges by a clam shell dredge that is not well adapted to the work. No difficulty is experienced, however, in supply-

ing the amount needed at the spillway mixing plant. The dipper dredge is developing the sand deposits at a depth of twenty feet or more, and cannot work to an advantage at a less depth. In the course of two weeks the old French suction dredge, which was found on the bank of the Chagres at Chagrecito, and is undergoing repairs at the Cristobal drydock, will be put in service at Nombre de Dios to assist in stripping the surface clay and silt from the sand. A new dredge with a clam-shell bucket erected on each end, built especially for the Nombre de Dios work, will be put in service some time during the present month, and the best sand to be obtained in that locality can then be handled in any quantities.

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The Marmot, an old French ladder dredge of the Belgian type, was launched at La Boca shipways on March 25th. Within a month we will be at work in the Pacific entrance to the Canal, doing the excavation work for which it was designed twenty-five years ago, but never entered upon. It is a composite dredge made of a hull taken from the beach at La Boca opposite the Panama railroad wharf, plates dug out of the mud at San Pablo, and machinery from an old dredge at Gorgona left on the banks of the Chagres by the French. The cost of rebuilding is about \$35,000, and the capacity of the dredge will be about 6,000 cubic yards a day of two 12-hour shifts. The hull of the dredge had been erected by the French and then anchored at La Boca. Before the machinery was installed work was suspended, and the hull, an iron box 130 feet long, 38 feet wide, and 12 feet deep, was abandoned. Early in the American occupation it was sunk in the old French canal in order to get it out of the way. When the project for dams at La Boca was abandoned the hull was found to be again in the way and it was raised and sunk outside the prism of the Canal, opposite the steamship wharf. It was floated last fall and on November 10th was drawn up onto the

shipways. The bottom and a few of the frames were completely rotted away, but the plates above the water line were in good condition. The frames amidships were renewed, and new plates put on the bottom. A set of bilge plates, unimpaired excepting one corner were found in the mud at San Pablo, where they had been left by the French. These plates were used and the corner that was lacking was supplied from an old dredge at Gorgona. The decks were also renewed. The deck machinery, including the training engine, is the only new machinery installed.

Three return tubular Scotch marine boilers, taken from one of the old dredges at Gorgona, supplied with new tubes and made equal to new American boilers of the same type, were installed and fitted with burners for using oil as fuel. Two vertical double compound, reciprocating engines, likewise taken from an old French dredge at Gorgona, have been repaired and will be put in. The high pressure cylinders are 320 millimeters in diameter; low pressure, 650 millimeters; revolutions, 51 per minute; stroke, 750 millimeters; and the combined horsepower is 190. The total horsepower of the dredge is 250. The ladder tower was on the hull, but the ladder was taken from an old dredge left by the French at San Pablo. New half-yard buckets recently purchased in the United States will be used.

The dredge is of the type that makes its own flotation, and on this account will be especially useful excavating in the old French canal where the Scotch type of dredges can work only after a sufficient depth of water to float them has been procured.

An old 16-inch suction dredge left by the French on the banks of the Chagres at San Pablo is on the shipways at La Boca being converted into a coal barge. It was cut into three sections and carried by train from San Pablo to La Boca. It is 90 feet long by 17 feet wide by 10 feet high.

Six of the eight concrete mixers to be used in the construction of the Gatun locks have been delivered at Gatun. They are of the Chicago cube type and have a capacity of two yards.

1,250,000 pounds of dynamite were received in one shipment to Cristobal from Thompson's Point, New Jersey.

Two shiploads of cypress ties for use on the construction railroads have arrived on the Isthmus. The cargoes were respectively 19,000 and 45,000 ties, part of an order of 200,000 ties recently placed in the States.

The highest record for steam shovels in any district of the Central Division was made on March 24, by 19 shovels at work in the Culebra District, when 27,910 cubic yards of rock were removed, an average of 1,468 cubic yards per shovel.

PERSONAL.

Dr. W. C. Hobody, chief quarantine officer of the port of San Francisco, has been ordered to Honolulu as chief quarantine officer of the island port.

Dr. F. E. Trotter, attached to the immigration bureau of San Francisco as medical officer, will succeed Dr. Hobody.

Dr. King, at present at the Marine Hospital, will have charge of the medical department of the Immigration Bureau.

Rear Admiral Sebree will succeed Rear Admiral Swinburne as commander in chief of the Pacific fleet, and Rear Admiral Barry will succeed Rear Admiral Sebree as commander of the second division of the first squadron of the fleet.

Commander R. F. Lopez, U. S. N., inspector in charge of the Twelfth Lighthouse District, will be relieved per-

manently by Commander W. G. Miller, U. S. N., late executive officer of the battleship Minnesota.

Captain Gow of the Dollar Steamship Company, is confined to his home in San Rafael, suffering from an attack of malaria.

Assistant Secretary of the Navy B. Winthrop is on a tour of inspection of the different navy yards of the country, and will probably reach the Pacific Coast during the summer.

Supervising Inspector John Birmingham has restored the master's license of Captain Nicholas Wagner, which had been revoked by the Alaskan Board of Steamship Inspectors.

The Alaskan Board, composed of Captain Whitney and a chief engineer, suspended the license of Captain Wagner for the loss of the *Star of Bengal*, when 111 men were drowned. After taking six months to investigate the accident the Board finally revoked the license of Captain Wagner for unskillfulness and negligence. In response to an appeal, Captain Birmingham made a decision, in which he says: "I find the said charge to be unsubstantiated by the evidence in the case in the matter of the loss of the *Star of Bengal* on Coronation Island, Alaska, September 20, 1908, which resulted in the drowning of 111 people. It appearing to me from said evidence that Captain Nicholas Wagner was in no way to blame for that disaster, it is hereby ordered that his revoked license be at once restored to him."

After continuous active service for twelve years as chief engineer of the P. M. S. S. *Asia* William Allen had his resignation accepted by the Mail Company. Mr. Allen came from England on the liner *Doric*, as the *Asia* was then known, in 1896 on a record trip that has never been beaten, an average speed of 320 miles a day being maintained. Mr. Allen will make his home in this city.

Captain C. J. Lancaster, master of the steamer *R. D. Inman*, that stranded near Bolinas Point, March 20th, was found guilty of negligence and unskillfulness, and his license was suspended for six months.

S. S. "ADMIRAL SAMPSON."

FRONTISPIECE

The Pacific Coast can well be proud of the S. S. "Admiral Sampson," on which alterations have just been completed at the plant of the Risdon Iron Works.

This vessel was formerly owned by the United Fruit Company of Boston, being operated by them in their service between Boston and Kingston, Jamaica.

The vessel was purchased on the 24th of November, 1908, loaded with 1,500 tons of coal and sailed for San Francisco on the 28th of November, four days later.

She arrived at Coronel on January 2nd and at San Francisco on January 27th of the present year. Four days later she was taken over by the Risdon Iron Works for alterations. They turned her into an oil burner, built a top-gallant-forecastle, a top-gallant-poop for second class accommodations, which, we might add, cannot be surpassed on the Coast, erected a new steel deck house containing 16 rooms, a shade deck, installed oil tanks, air compressor, etc., and turned her over to the Alaska Pacific S. S. Co. on the 17th of the present month.

The "Admiral Sampson" is 292 feet over all and 280 feet between perpendiculars, 36 feet beam and 25 feet depth of hold. She has two triple expansion engines 18"x28"x45"x30" stroke and two Scotch Marine boilers.

When she was originally built at Cramp's plant in 1898, she was destined for a 14-knot vessel, but has averaged 15 knots a great many times, while on her regular run between Boston and Kingston. With the installation of oil, it is anticipated that she will even do better than this.

Her passenger accommodations cannot be surpassed on the Coast, she having the distinction of being the only two berth vessel operating on this Coast at the present time.

The rooms on the lower deck all open to the inside, as do a few on her shade deck. The new rooms recently constructed, however, all open to the outside.

She has accommodations for 80 first-class passengers and 72 second-class. About twenty more first-class passengers can be accommodated by using Pullmans, with which each room is provided.

On Tuesday, the 20th, the Alaska Pacific S. S. Co. gave an excursion on the "Sampson," on the bay, which was highly satisfactory to both the invited guests and to the owners.

The following day, Wednesday, the 21st, she sailed for Los Angeles, leaving San Francisco at 10:40 a. m. and arrived at San Pedro twenty-six hours later, or 12:30 the following day.

She also gave an excursion at this point and will also give one on Puget Sound.

With this boat on the run, the Alaska Pacific S. S. Co. will inaugurate a five-day service, the company's vessels leaving San Francisco for the North on the 5th, 10th, 15th, 20th, 25th and 30th of each month. They have arranged for the "Buckman" and the "Watson" to ply between San Francisco and Seattle and Tacoma, Bellingham, Everett and Anacortes.

The "Sampson" however, on the 6th and 21st of each month will run through to Los Angeles and on the Sound will only call at Seattle and Tacoma direct.

The "Sampson" is equipped with a United Wireless Telegraphy, as are also the Steamships "Buckman" and "Watson."

Capt. E. P. Bartlett, one of the best known skippers on the Pacific Coast, and former master of the "Watson," went out as Captain of the "Admiral Sampson."

Alexander Ryan, former chief of the American Hawaiian Steamship "Californian," and more recently of the "Buckman," went out as chief engineer.

Toney Allen, former purser on the Pacific Mail S. S. Co., is occupying a similar position on the "Sampson" and Mr. Geo. Pomeroy is attending to the cuisine.

We welcome this new steamer to the Coast and trust that the company will meet with success in their increased service.

LEGAL.

The Maritime Court of San Francisco has given judgment to the Union Transportation Company for \$45,000 for the loss of the steamer Dauntless.

The California Navigation and Improvement Company's steamer Mary Garratt in 1897 collided with the Dauntless, practically destroying the latter. Suit was begun six years ago to establish the liability, and judgment was rendered holding the C. N. and I. Co. liable, and limiting the liability to the value of the Dauntless and cargo, amounting to \$35,000. In addition to the damages the California N. and I. Co. will have to pay interest since 1904.

Collector Stratton has received the following important decision from Washington: "The consignee of imported merchandise is deemed, for tariff purposes, to be the owner of the merchandise and liable as such for the lawful duties assessed. Where such consignee voluntarily enters the merchandise, pays duty and makes declaration in the usual forms prescribed by customs regulations, he is estopped from pleading his agency for the ultimate consignee is against the government so as to exempt him from liability for such duty. Where goods are shipped to this country by a foreign consigner

without authority from such ultimate consignee, the latter may refuse to recognize the shipment, or to make entry for such goods, and thus relieve himself from the liability to pay duties on the importation."

The suit of Albert D. Pierce, libellant against the steam schooner Yellowstone, has been dismissed by Judge Wolverton of the Federal Court of Astoria, the case having been compromised outside of court. On December 19 last the steam schooner ran into and sank the launch Imperial, belonging to Pierce, and action was brought for damages, aggregating \$1,600.

LOCAL NOTES.

The Pacific cruiser fleet and the torpedo boat flotilla will doubtless be in San Francisco Bay the latter part of this month.

Local launchmen are preparing to send a protest to Washington against the practice of the army transports in throwing straw mats overboard. The mats, filled with coal, are placed on board the vessels at Nagasaki, and when the coal is used the mats are also burned. It is necessary sometimes to transfer coal from one vessel to another and in doing this the mats are thrown overboard.

Several launches have been put out of commission by the jamming of their propellers from this practice, and it has developed into a menace to navigation.

The Department at Washington has requested Collector of the Port T. Stratton to extend every courtesy to the Japanese training squadron, consisting of the ships Soya and Aso, which will arrive at San Francisco April 25, remaining here until May 8.

Special Deputy Collector W. S. Hamilton and Chief Boarding Officer Charles A. Stephens have been assigned by the Collector to arrange for their reception and entertainment in connection with the army and navy.

A new tug launch, Sans Souci, owned by Steward Bros. of Sacramento, was launched April 13. The boat is forty-five feet long and eight feet six inches wide, and will be fitted with a fifty horse power four-cylinder gas engine. The boat will be used for heavy hauling on the Sacramento and San Joaquin rivers.

McCormick & Co. have let a contract for a lumber steamer to be built at the Lindstrom yards on Grays Harbor. The steamer will have a carrying capacity of 1,000,000 feet.

A survey of the U. S. S. West Virginia was held by Naval Constructor Henry T. Wright and Lieutenant R. C. Davis, representing the construction and steam engineering departments at Mare Island navy yard, to determine the work necessary on the ship when it returns from the Seattle Exposition in June. The result of the investigation will be forwarded to the Navy Department in order to receive authority to go ahead with the work.

The steamer Annie E. Smale, out ninety days from Hongkong to the Coast, arrived at Tatoosh islands Tuesday, the 20th.

Senator Perkins has introduced a bill providing for additional lights on the coast of California. The aids asked for and estimated cost of their establishment are as follows: Anacapa Island, light and fog signals, \$100,000; Point Hueneme, fog signal and keeper's quarters, \$17,000; Point Tennin, third order revolving light and keeper's quarters, \$1,500; Santa Barbara, fourth order revolving light signal and keeper's quarters, \$18,000.

Secretary MacVeagh will investigate the accusations made by James Burns, formerly an engineer of the revenue cutter service, involving the efficiency of the service. Besides other incidents, Burns severely criticises the service for its actions, during the wreck of the

steamer Valencia in 1906, charging that the captains of the cutter, although having full knowledge of the wreck, refused to render any assistance whatever until orders from Washington were received.

Traffic conditions in the Orient are the most depressing in years, and there are over 90,000 tons of tonnage disengaged. Several of the Japanese Steamship Companies, who have been constantly adding to their fleets for the last two years, are said to be in financial difficulties.

The steamer Chiyoda Maru, 1675 tons, was recently sold at Yoketoyo, after having laid idle for months. The steamer Katori Maru, 2206 tons, was attached last month at Yokohama, where she remains at anchor.

SOUTHERN COAST NOTES.

Imperial Beach, Cal.

The new ocean pier, which has been in the course of construction for the last month, is now completed. The pier is one of the strongest and best built piers in the state.

* * *

Santa Cruz, Cal.

The last meeting of the Chamber of Commerce was taken up mainly in discussing the nature of the reply which that organization will send to the War Department at Washington, in response to the government's question as to why Santa Cruz should be awarded a breakwater. The government also asks for a reply in detail as to how much commerce this city enjoys at present and the outlook for increased business after harbor improvements have been completed.

* * *

San Pedro, Cal.

The new deep water slip at Timms Point, constructed for the Southern Pacific, has been completed.

The local custom house reports the following business for the month of March: Imports—Domestic: Lumber, 5,556,000 feet; shingles, 13,922,000; laths, 7,799,000; shakes, 33,000; ties, 20,337; posts, 5800; piles, 337; trucks, 20; doors, 557; shooks, 16 tons; staves, 22 tons; flour, 162 tons; paper, 432 tons; grain, 6,561 tons; general merchandise, 7,291 tons; fertilizer, 591,280 pounds; cement, 1000 barrels; refined oil, 3,000 barrels; sheep 139 head; logs, 922; machinery, 21 packages; merchandise, 1,343 packages; firecrackers, 100 packages; ochia, 24 bales; nitrate of soda, 1,098,830 pounds; tapioca, 498 bags; rice, 3,500 mats; matting, 168 rolls; curios, 18 cases; sake, 115 casks. Exports—Domestic: General merchandise, 3,128 tons; plaster, 150 tons; crude oil, 125,000 barrels. Foreign: Gasoline launch, 1; fuse, 1 case; caps, 1 case; dynamite, 600 cases; powder, 1,200 cases; plaster, 200 tons.

NORTHERN COAST NOTES.

Seattle.

The cruiser Tennessee, which is at Magdalena Bay at the present time, will be sent to the Bremerton Navy Yard upon arrival at this port. The Tennessee is badly in need of repairs, and as she will attend the opening of the Alaska-Yukon Exposition on June 1, only important repairs will be made.

The codfishing schooner Joseph Russ which grounded on Port Angeles spit a few weeks ago while on her way to the codfishing grounds in Bering Sea from Anacortes, will be laid up for some time for repairs. In stranding the vessel started her forefoot.

The winter and spring season's cruise of Seattle's halibut fleet in southeastern Alaska is over and the twelve vessels comprising the fleet have returned to port.

Orders have been received from the War Department, by the local military head, directing that all quartermaster's supplies for Alaska army posts, Puget Sound artillery posts, and Forts Lawton and George H. Wright shall be purchased by the quartermaster at Seattle.

The posts for which supplies will be bought through the Seattle office are Forts Worden, Casey, Flagler and Ward, the four coast artillery posts protecting Puget Sound; Forts Lawton and George H. Wright, the third infantry posts in Seattle and Spokane, respectively, and Fort Davis at Nome, Alaska, Fort Egbert, at Eagle, Alaska; Fort Gibson, at Tanana; Fort Liscum, near Valdez, Alaska; Fort St. Michael, Alaska, and Fort Wm. H. Seward, at Haines, Alaska.

The cutter fleet which will be dispatched to Alaska this season, will be prepared owing to the efforts of Capt. W. G. Ross, chief of the U. S. revenue cutter service, to protect and aid the American merchant men in every way possible.

The S. S. St. Croix, belonging to the Schuback Hamilton S. S. Co., now on the way via the Horn from the Atlantic will reach Seattle about April 27.

The Puget Sound Navigation Co., and the Canadian Pacific are engaged in a rate war on the Seattle-Victoria run which will rival the long drawn out struggle of the summer of 1908. The steamer Chippewa, belonging to the Puget Sound Navigation Co., will be placed on the run toward the close of April.

The Pacific Coast Steamship Company will spend in the neighborhood of \$10,000 on the S. S. Spokane which will consist largely of increased passenger accommodations. The Spokane is employed visiting the glaciers of southern Alaska and as a record-breaking business is expected on the run this season the companies engaged in this trade are making preparations to take care of the increased traffic.

* * *

Victoria, B. C.

The American fishing schooner Levy Woodbury is supposed to have been captured by the Dominion government revenue steamer Kestrel.

The private owners of the Twentieth-Avenue wharf at Ballard are negotiating to sell the wharf to Seattle which city already owns one wharf in that vicinity.

Preparations are being made at Bremerton yards to receive the cruisers of the Pacific fleet which will be repaired during the summer. The cruisers which will be repaired are the Tennessee, Washington, Pennsylvania and Colorado.

Capt. Worth G. Ross, commandant, and Capt. C. A. McAllister, engineer in charge, both of the U. S. revenue cutter service, have concluded their annual inspection of all cutters detailed on the Pacific Coast. Capt. Ross announces that cutters Bear, Manning, Rush, and Perry will proceed north for their annual seal patrol off Bering Sea from May 5 to May 15. The Thetis will go into the Arctic and cruise the coast east of Barrow as far as practicable.

* * *

Astoria.

The Swiftsure Lightship No. 93 has been detailed to a station at Swiftsure banks and will be at her station about April 20. These banks are located a few miles off Vancouver Island and in the vicinity of the most dangerous coasts on the Pacific.

The fourmasted schooner, C. S. Holmes, is laid up at Young's Bay where she will remain until lumber charter conditions improve.

An appropriation of \$3,000 was made by the commissioners of Pacific County, Washington, for a public wharf at Nahcotta.

* * *

Tacoma.

The new fishing schooner Active sailed April 15 on her maiden trip to the Halibut banks. In the winter the Active will return and fish around Petersburg.

The Weir Waterhouse Line have completed traffic arrangements with the Canadian Pacific R. R., and the S. S. Minnesota of the Great Northern S. S. Co., will operate out of Tacoma to the Orient in conjunction with the Weir Waterhouse Line. The Weir Line was compelled to get the Minnesota in order to keep the government contract for the transportation of forage.

* * *

Portland.

The steamer Leona will be placed on the freight and passenger trade between Portland and McMinnville.

The Oregon City Transportation Company is contemplating the building of another light-draft steamer for service between here and Corvallis, the head of navigation on the Willamette.

Freight and passenger traffic conditions between Puget Sound and Alaskan ports are greatly congested at the present time and in so far as the Alaska Pacific S. S. Co. is concerned there will not be enough accommodations for all passengers who apply in the summer.

The transfer of charters of the Hamburg American Line to Norwegian steamships is completed and the Portland and Asiatic line will take over its new charters beginning with the departure of the Rygja about June 15. The Nicomedia will not make another trip for the P. & A., but will leave the river for Hamburg to be turned over to her owner, as soon as she finishes discharging cargo; the other Hamburg steamships will follow to the home ports as soon as the present trips are completed.

The S. S. Selja will follow the Rygja, being scheduled to sail from here July 15; following next in order will be the Henrik Ibsen to arrive August 3.

The Norwegian vessels are of about the same tonnage as the Hamburgs and will make about the same time across the Pacific.

The Yukon Transportation and Trading Company have closed a traffic agreement by which the steamer St. Helens will make three voyages to Norton and Kotzebue sounds during the summer, carrying a cargo of 1,000 tons on each voyage. The Company will receive the cargo at St. Michael and distribute it along the lower Yukon and at Fairbanks and China with its stern-wheel steamer Julia B. and barges.

Major T. F. McIndoe, of the local U. S. Engineer's office, has requested the Portland Chamber of Commerce to provide complete statistics of the total tonnage that goes down the river at the present time, dockage and facilities for handling freight.

This data will be necessary to arrive at a satisfactory conclusion as to whether the channel of the Willamette River from Portland to its mouth, and the channel of the Columbia River from the mouth of the Willamette to the bar should be deepened to 30 feet.

After a voyage of 131 days from Newport News, the new government dredge Clatsop arrived from the Atlantic Coast, Wednesday the 21st, and will begin operations as soon as the necessary fittings have been installed. The Clatsop will displace the U. S. Ladd which will be sent to the government bone yard at Portland.

* * *

Aberdeen.

Owing to a collision with the tug that was towing her to sea, the schooner Polaris will be detained several days to make the necessary repairs so that she can proceed to Sydney, Australia. The Polaris lost a portion of her main rail and her bulwarks stanchions, the damage amounting to \$2,000.

* * *

Seward, Alaska.

A new wharf, 850 feet in length, has just been completed and will accommodate the largest ocean going vessel on this coast.

The Dominion Government will likely close Hecate strait, between the Queen Charlotte Islands and the mainland of British Columbia, to American fishermen. This strait is a great halibut supply source for fleets operating out of Seattle and Vancouver, and the fishermen are making a strong fight to keep it open to all.

Bids are being solicited by the United States pay inspector's office, for 30,000 pounds of steel boiler plates. The plates will be used in repairing the eight armored cruisers that will come to the sound during the Alaska-Yukon-Pacific Exposition.

CHANGES IN SHIPS' OFFICERS.

Charles F. Lindars, in lieu of H. G. Barning, master of the S. S. Venus of Seattle.

C. E. Ahues in lieu of P. Borgman, master of barge Harvester of Seattle.

W. E. Mitchell will succeed F. G. Blaine as master of the S. S. H. B. Kennedy of Portland.

H. Penfield will take the place of W. E. Trevorah as master of the S. S. Indianapolis of Port Townsend.

Samuel Aitken will succeed Wm. Allen, retired, as chief engineer of the S. S. Asia. Aitken was formerly first assistant engineer of the Asia.

Following are the names of the officers of the A. P. S. S. Admiral Sampson: Edward P. Bartlett, captain; Thomas M. Burke, first officer; Nelson A. Smith, second officer; and Gustaf W. Gustafson, third officer; Alexander Ryan, chief engineer; William J. Gunn, first assistant engineer; Frank C. Farwell, second assistant engineer; Charles Ganong, third assistant engineer.

SHIPBUILDING NOTES.

Union Iron Works.

The S. O. S. S. Dakota is undergoing a general overhauling.

The steam schooner Iaqua is at the works undergoing repairs to machinery; also having cargo winches altered.

P. C. S. S. Coos Bay on floating dock Thursday, April 22 for cleaning, painting and repairs to hull.

Steam schooner Norwood on floating dock for cleaning, painting and repairs to hull.

Moore & Scott.

Repairs have been completed on the Coast and Geodetic Survey steamer Explorer. Moore & Scott secured the contract for both the engine and hull work, and carpenter and joiner work. The bid on the former was \$2,995 and on the latter \$185.

The S. S. Shasta will be placed on the drydock the first of May for overhauling, and to receive a new propeller.

The S. S. Alameda is receiving her usual amount of repairs.

The quarantine tug Argonaut was on the drydock April 20 for inspection.

Gorham Engineering Works.

The Gorham Engineering Works have completed the launch Peerless, everything being satisfactory on the tryout.

United Engineering Works.

The S. S. Homer is receiving a general overhauling.

The S. S. Point Arena is on the drydock for cleaning and painting.

George W. Kneass.

George W. Kneass is building a 26-foot launch, which will be shipped to the Amadyr River, Siberia, to be used in carrying mining machinery up and down the river. The boat will be equipped with an 8 horse power Union gas engine.

Pacific Merchant Marine

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The five periods in the history of trade require the intellectual grasp of the principles controlling, and different conditions surrounding them. The old world has participated in all the five periods—the first commencing with the earliest times and closing with the fall of the Western Roman Empire; the second extending from thence down to the discovery of America; the third from 1500 to 1776; the fourth from 1776 to 1860, comprising the period of steam; and the fifth from 1860 to the present time, or the period of electricity. The latter periods have been the most important to the world, and with these the United States is concerned and prominently identified.

Commencing with the third period trade began to acquire security and extension, which it totally lacked in the previous periods. Augmented by the discovery of the Western Hemisphere, commercial interests in Europe struggled for supremacy, and this period witnessed the failures of commercial Spain and Portugal, the rise and fall of Holland, and the beginning of England's present maritime policy, which brought her immunity from invasion, control of the carrying trade of the world, and had an immeasurable effect on the growth of English manufactures.

During the fourth period America developed the only available resource—agriculture, and to such an extent that an American merchant marine was made necessary and was stimulated by the 2d Act of the 1st Congress of July 4, 1789, when customs duties discriminated in favor of American ships, and again in the 3d Act of the same Congress, on July 20, 1789, when tonnage dues on vessels owned by American citizens were placed at 6 cents per ton, American vessels owned by foreigners, 30 cents per ton, and all other ships 50 cents per ton. In 1794 the duties were revised and discrimination continued, as a result of which, in 1795, American vessels were handling 93 per cent of the imports and 87 per cent of the exports of the United States. In 1804 the tonnage discrimination was doubled, and American vessels were still in control of American commerce and continued so until the war of 1812-15, when the loss amounted to nearly 40 per cent. At the close of the war recovery set

in and continued until 1825, when England's reciprocity offer was declined, bringing about conditions best told in Webster's boast, "We have a commerce which leaves no sea unexplored; navies which take no law from superior force." In 1827 appeared the celebrated lament of the London Times: "It is not our habit to sound the tocsin on light occasions, but we consider it impossible to view the existing state of commerce in this country without more than apprehension and alarm. Twelve years of peace and what is the situation of Great Britain? The shipping interest, the cradle of our navy, is half ruined. Our commercial monopoly exists no longer; we have closed the West Indies against America from feelings of commercial rivalry. Its active seamen have already engrossed an important branch of our carrying trade to the East Indies. Her starred flag is now conspicuous on every sea, and will soon defy our thunder."

In 1828 the United States began to reciprocate in ocean freights. In 1840 ocean freight reciprocity was extended to the English colonial trade. In 1840 we had returned to conditions of 1795, and in 1849 ocean freight reciprocity was agreed upon as to all English trade. In 1850 England adopted ship subsidies, other countries following England's example as told in the previous issue of Pacific Merchant Marine.

Trade in the United States may be divided into two periods. Passing comment on the first, the agricultural and commercial period, and noting the second, the industrial period, we should continue the present methods used to combat obstacles of development in trade, for the first three periods of European trade bear no comparison with the methods that are required today. Although conditions have changed, we are led to believe every step in the progress of civilization has kept an equal pace. At no time in the world's history has the course of trade been free from difficulty; population, industry and resource have always been the three factors of international trade, the very magnitude of which in any of the periods mentioned would suggest the difficulties in the way of controlling commerce by any one or combination of countries, or individuals.

Conditions existing from the twelfth century to the sixteenth century brought into existence the Hanseatic League (an association of North German trading towns) which included all trading towns of importance from Russia westward to London, and Lubeck as the center of activity. The growth of territorialism in Germany, combined with foreign competition and geographical discoveries, influenced the downfall of the Hanseatic League. However, the league ruled the commerce of the Eastern Hemisphere, and forms the connecting link which rules the commerce of today.

The problems solved by the Hanseatic League were as monumental as the questions which confront the rehabilitation of an American merchant marine, notwithstanding the fact that the whole range of affairs has been immensely broadened, that commerce has extended to every country of the two hemispheres, that we now have easy and rapid transportation of goods by land and sea, that we are in quick communication from every point of the compass, and the prevalence of mercantile law and safety, notwithstanding the fact that the Hanseatic League transported a large amount of goods by a camel train and that we of today have progressed to the present efficiency of railroads and notwithstanding the fact that the Hanseatic League, the most powerful and effective trust of the middle ages, did monopolize the commerce of the world. With these facts before us we lay our claim to a superior state of intelligence, our wonderful development, prosperous and happy condition, and Lincoln's legacy, "You can fool some of the people some of the

time, some of the people all of the time, but you can't fool all of the people all of the time." And for over fifty years we have been playing pitch and toss with an American merchant marine. And why? We have claimed credit for everything under the sun during the two periods of our existence; we have shown the world the greatest and most rapid progress in the history thereof; we have the greatest system of railroads in the world. Yet "we have no American merchant marine." We have to distinguish the difference between transportation by railroad and by water; we have to discriminate between the influence which developed a protective navy, which so ably assisted our internal development, which in no wise interfered with transportation by either land or sea, but, on the other hand, helped to develop both and which retarded the building of an isthmian canal, until President Roosevelt's anti-trust policy made the Panama canal a reality; qualify between the notorious opposition of coastwise laws and the adoption of same by which the value of active United States craft increased from \$200,000,000 in 1889 to \$500,000,000 in 1908. Know that the taxable wealth of railroads and their equipment in the United States is \$11,244,752,000 and the same for shipping and canals is but \$846,489,000.

MEETING OF THE BOARD OF STATE HARBOR COMMISSIONERS.

Tuesday, April 22, 1909.

The application of the Associated Oil Co., for a modification of Rule 91 of the Rules and Regulations of the Board, whereby permitting the oil companies to discharge fuel oil at other than between the hours of sunrise and sunset, was answered in writing by Alfred Stillman, secretary of the Board of Underwriters of the Pacific, who advised against the application. Secretary Thorpe was instructed to so notify the various oil companies interested.

Refund bills in favor of C. Bayfuss & Co. amounting to \$18.45 were read and ordered paid.

R. Dunsmuir & Sons Co., in communication, relinquished use of space occupied by scale and scale house at Folsom street Wharf No. 2, to take effect May, 1, 1909.

The Union Oil Co. notified that all their pipes had been removed from the Center street dock. Action on the matter was postponed.

The attorney of the Board submitted a written opinion stating that it would be an abuse of the privilege given to the Board under the law to permit rebates upon flour in transit, as requested by the coastwise transportation companies, and quotes from the Political Code of California in support of his opinion. Secretary Thorpe was instructed to so notify all parties interested.

Superintendent T. Ahern, of the coast division of the Southern Pacific Company, referred to a claim for damages to railroad cars on the belt railroad, amounting to \$15. The matter was referred to superintendent of the Belt Railroad.

Hickman & Masterson Co. notified the Board that they no longer required the use of 29,520 feet of space occupied on seawall lot B, and on motion, action of the Board dated May 1, 1903, was rescinded, to take effect May, 1, 1909, or as soon thereafter as the premises were available to the Board.

The California Navigation Company relinquished outer berth at Washington street wharf to take effect May 1, 1909. The Petaluma Transfer Company made

application for use of the berth, which matter was referred to the Chief Wharfinger.

The bond of J. Bardellini as wharfinger in the sum of \$5,000 was received and approved.

The Pennsylvania Steel Co. submitted a bid to furnish one No. 6 lefthand branch-off and one righthand branch-off, both to be constructed of 9-inch girder rail (section 263 of 241 lbs.) manard hand center type, complete, with ground levers in cast iron boxes for the sum of \$785 each. The proposal of the Lorain Steel Co. was \$839 each. The former bid was accepted.

Promptly at 10 o'clock, as specified, bids were opened for leasing of seawall Lot No. 16 and improvements thereon. One bid was submitted and opened by President Stafford in the presence of the bidder, P. J. Moliterno: From May 1, 1909, to April 30, 1914, \$101 per month; from May 1, 1914, to April 30, 1919, \$105 per month; from May 1, 1919, to April 30, 1924, \$110 per month; from May 1, 1924, to April 30, 1929, \$115 per month; from May 1, 1929, to April 30, 1934, \$120 per month. The certified check, amounting to \$1,440, accompanying the bid, was ordered deposited in the State Treasury, to the credit of the San Francisco Harbor Improvement fund. The bid submitted was accepted, and attorney of the Board instructed to draw the proper lease.

Informal bid of Judson Manufacturing Co., amounting to \$1,540 for furnishing structural steel for bulkhead on Section No. 7 of the seawall, was accepted. The company was requested to file a bond in the sum of \$800.

Gray Bros.' Crushed Rock Co. were criticized for being dilatory in the construction of Section 11 of the seawall. The bondsmen of the rock company have been notified and also criticized for failure to acknowledge receipt of communication from the Board on the same subject.

Engineer of the Board was instructed to prepare plans and specifications for partitions and booths in the waiting rooms of the Southern Pacific Company and Key Route waiting rooms.

The following bills were read and ordered paid: Eureka Boiler Works, \$2,894.85; Moore & Scott Iron Works, \$786.81; S. F. Teaming Co., \$1,280.31; Stockton Iron Works, \$45; D. J. Hanlon & Co., \$287.53; Ferry Florist, \$35; Union Iron Works, \$374.98; S. F. Quarries Co., \$311.40. Total, \$6015.

At the close of the regular meeting of the Board, the question of adding two new sections of the seawall in San Francisco was taken up in due form, with Hon. E. R. Taylor, mayor of San Francisco, present, and acting with the Board. Hon. J. N. Gillett, governor of the State, was absent.

Plans and specifications approved by the Advisory Board of the Department of Engineering were submitted by Ralph Barker, assistant State engineer, and formally discussed. By resolution presented by Commissioner Tuler, it was unanimously decided to construct two new sections to the seawall as follows: First—A section of seawall to extend from the southerly line of present seawall at Section 8 b, 300 feet southerly along the water front line. Second—A section of seawall to extend 1,000 feet southerly along the water front line, beginning at a point 6,807 feet southerly of a line projecting from the northwest corner of the intersection of Harrison and Steuart streets.

Secretary of the Board was instructed to call for sealed proposals for the proposed sections according to plans and specifications, proposals to be delivered at the office of the secretary of the Board of State Harbor Commissioners on or before 11 a. m., Thursday, June 10, 1909.



PLEASURE CRAFT



THE season of 1909 is now near at hand and gives promise of being an auspicious one. Judging from the number of new launches being built, the power boat game is coming largely in favor around the bay, but in spite of this fact the yachtsmen are managing to hold their own and are particularly enthusiastic over the coming season.

Although there are few new yachts being built this year there seems to be a ready market for those which have been put up for sale, and it is a notable fact that several old-time yachtsmen who have been out of the game for some time are again getting into line and will be back at the wheel this season.

The water carnival and races scheduled for July 4th will be held at Belvedere Cove and will rival anything in this line ever given on the Pacific Coast. There will be several valuable cups to be raced for in the different classes, with entries open to any club, and it is expected that there will be in attendance a large number of launches and yachts from the clubs about the bay and its tributaries. In the evening there will be band concerts, fireworks and an illuminated parade of power boats. There will be prizes offered for the best decorated ark, yacht and launch, and the Motor Boat Club will keep open house during the afternoon and evening, with dancing and refreshments. This will be a great event in boating circles, and the Pacific Motor Boat Club takes this opportunity to urge the attendance of as many as possible.

The yachts Genesta, Olga, White Wings and Mignon, and Harry Hawk's ark Atlantis, which were left in Belvedere lagoon at the time of the bridge opening, were taken out last Sunday and are being put in commission.

The Vallejo Yacht Club holds its opening on Saturday, May 1st. There will be a reception and dancing in the afternoon, with the usual jinks in the evening.

There are large numbers of applicants for membership in all the yacht clubs this season. If only a few of these become boat owners it will make a substantial addition to the yachts now on the bay.

Captain Charles Miller's fast sloop Yankee is now undergoing minor repairs at Belvedere. There is keen rivalry between Captain Miller and Commodore Fulton Berry, owner of the Nixie. These boats are very evenly matched and their owners spend much time in racing one another. The Nixie is now in commission and Commodore Berry is taking advantage of the fine weather and putting in much time aboard his boat.

R. C. Tittel is having a launch built at Klarman's shop in Tiburon, and expects to have her in commission by the first of May.



YANKEE—Capt. C. Miller

The yacht Ramona of Los Angeles has been chartered by a party of Easterners, and is to make a trip to Cocos Island in search of the buried treasure supposed to be located there.



LADDIE—Crew of Yankee

This boat is patterned after the Italian Crab boats and is to be equipped with a double cylinder 8 horse power Regal engine.

Mr. L. S. Buchanan recently completed a of Los Angeles has thirty-foot auxiliary sloop, the power consisting of a 4-horse power Scripps motor, housed under the cockpit. This boat will be used for cruising between San Pedro and Santa Catalina Island.

Bert Foster has purchased Billy Whittier's fast launch Sionara, and has her moored off the Corinthian Yacht Club.

George Briggs intends to have his motorboat yawl rigged and to use the sails as an auxiliary to his 5-horse power engine. As this boat is built on the Italian crab boat lines, she should prove readily adaptable to this improvement, and as Mr. Briggs will make several trips to Santa Cruz this season he believes this to be a very necessary addition to his equipment.

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Dr. Oliver Nelson of the San Diego Yacht Club has purchased the yawl Uncas, formerly owned by the late Commodore Griswold, and expects her to figure in the races for the coming season.

Billy Leavitt, the well known motor boat enthusiast of this city, has purchased from Stone & Van Bergen the 20-foot hull built for Charley Morrell and has installed a 14-horse power two-cylinder Detroit engine.

The good old sloop Clara has probably gone to her last resting place. She is one of the oldest boats on the bay, having originally been built in New York and brought around the horn on a sailing vessel in San Francisco's early days of yachting. For many years she sailed under the Corinthian penant and has won many famous races. Last summer she was used as a houseboat by her owner, but dry rot has affected her so badly it was decided it would not be worth while to fix her up, and she has been left on the mud in Belvedere lagoon.

The Pacific Motor Boat Club has arranged its program for the season of 1909 as follows:

May 9th.	Opening Day-Cruise in Squadron
May 16th.	Assemble at Club House at 1:30 p. m.
May 23rd.	Open Date
May 29th, 30th.	Cruise to Lime Point
May 31st.	Cruise to Vallejo and Napa, Saturday afternoon, 29th
June 6th.	Returning Monday
June 13th.	Open Date
June 20th.	Open Date
June 27th.	Cruise to Marin Islands
July 4th, 5th.	Open Date
July 11th.	Water Carnival and Races, 4th
July 18th.	Open Date
July 25th.	Cruise to Paradise Cove
July 31, Aug. 1.	Open Date
August 8th.	Cruise to Petaluma, July 31st
August 15th.	Open Date
August 22nd.	Open Date
August 29th.	Cruise to McNear's
Sept. 4 to Sept. 9.	Open Date
September 12th.	Vallejo Races and River Cruise, 4th
September 19th.	Open Date
September 26th.	Cruise to San Rafael
October 3rd.	Open Date
October 10th.	Cruise to Oakland and through San Leandro Creek
October 17th.	Open Date
October 24th.	Open Date
October 31st.	Open Date
	Closing Day; Cruise in Squadron

The Corinthian program for 1909 has been arranged as follows:

Date	Destination	
May 1	Opening Day	16 Return
May 2	Cruise in Squadron	22 Open
8	Open	23 Open
9	Open	29 Open
15	Petaluma Drawbridge	30 Open
		31 Decoration Day—Annual Regatta

FOR SALE.



The 50-foot waterline schooner yacht Marian was built by day's work for a capitalist of San Francisco, and should be seen to be appreciated. It is equipped and built in detail for ocean cruises or short pleasure trips. Nothing remains to start the Marian for a long or short voyage, except the provisions required. Yachting circles about the

bay are anxiously watching the possibility of an outside buyer, as the Marian is considered to be the most promising addition to the yachting fleet in this harbor for many years. Inspection is invited.

Inspection or communication, Stone and Van Bergen, foot of Baker street, San Francisco, Cal.

Sold at Stency's News Depot, 3 Steuart St.

June 5	Paradise Cove	21	Return
6	Return	22	"
12	Vallejo	28	Petaluma
13	Return	29	Return
19	Open	Sept. 4	Aliso and meet S. B. Y. C.
20	Open	5	Aliso
26	San Pablo Point	6	Labor Day—Return
27	Return	9	Inter-Club Regatta
July 3	Arroyo Point	11	Open
4	Through Suisun Cutoff to Vallejo	12	Open
5	Return from Vallejo	18	Open
10	McNear's	19	Open
11	Return	25	Outside Sausalito
17	Open	26	Outside
18	John Hammersmith Trophy	Oct. 2	Open
24	Martinez	3	Open
25	Return	9	McNear's
31	Open	10	Return
Aug. 1	Open	16	Open
7	Santa Cruz Race	17	Open
8	"	23	Paradise Cove & Corinthian Games
14	River Trip	24	Return
15	"	30	Closing Day
		31	Cruise in Squadron
		Nov. 14	Bridge Opens

One of the prettiest launching ceremonies that has taken place recently on the bay was that of the sea-going cruiser Peerless, at the works of the Gorham Engineering Company, Alameda, Cal.

Ed Helem, Esq., the Los Angeles representative of the Gorham Rubber Co., is the proud owner of the craft and was present with a large party of friends of the owners and builders.

The Peerless is of the straight stem, compromise stem cruiser type, with the interior finish of selected oak. The upholstering is of dark maroon leather. The engine room and pilot house are also finished in oak. The windows are of French plate glass to withstand the rough seas. The Peerless was designed by P. Bagley, Esq., of the Gorham Engineering Co., and is of the following

dimensions, and cost, complete, \$12,000: Length over all, 44 feet; beam over planking, 12 feet; depth to rabbet, 3 feet 6 inches. The keel is of pine with oak stem and stern posts. The planking is of pine with oak frames. The deck is of cedar, natural finish. The guards and chafing battens are of oak. The stem band, rudder skeg, rudder and propeller are of bronze.

The Peerless is propelled by a 4-cylinder 61½-inch bore, 7-inch stroke, 4-cycle, 50 rated horsepower Gorham open-face marine gasoline engine, designed to run on California distillate. On the test stand the engine developed 60 horsepower at 750 R. P. M. The net weight of the engine is 1,750 pounds.

Fuel is supplied to the engine from four 65-gallon cylindrical tanks, placed under the after decks, giving the boat a cruising radius of about 350 miles.

One of the features of the boat is the electric lighting plant, worked from a storage battery charged from the dynamos on the engine, lighting the incandescent globes in the interior of the boat, the running and head lights and the searchlight.

The switchboard is complete in miniature of a large steamer with all necessary electric instruments, meters and circuit breaker, automatically charging and discharging the batteries.

The equipment of the boat includes a 14-foot tender with a 3-horsepower single cylinder Gorham marine engine with reversible propeller, in davits on the top of the cabin. There is also a 10-foot skiff for landing in shallow water. After a thorough tryout of all the machinery and equipment, Mr. Helem, Mr. Gorham and a party of friends will go to San Pedro on the cruiser under her own power.



THE PEERLESS

THE TIBURON FERRY SERVICE.

There has been much speculation and no little anxiety among the members of the Corinthian Yacht Club and the people of Tiburon and Belvedere as to the boat service this summer between San Francisco and Tiburon.

Owing to the many erroneous reports appearing in the daily papers it was generally feared that the Northwestern Pacific intended to cut down the service to two boats a day and the new schedule which has just been officially announced will be a source of gratification to all concerned. It is as follows:

S. F. to Tiburon	Tiburon to S. F.
7:30 a. m.	6:45 a. m.
9:00 a. m.	8:15 a. m.

11:45 a. m. (Via Sausalito)	12:45 p. m. (Via Sausalito)
3:30 p. m.	2:45 p. m.
5:30 p. m.	4:45 p. m.
	6:55 p. m. (Via Sausalito)

Extra boats Saturday, San Francisco to Tiburon:

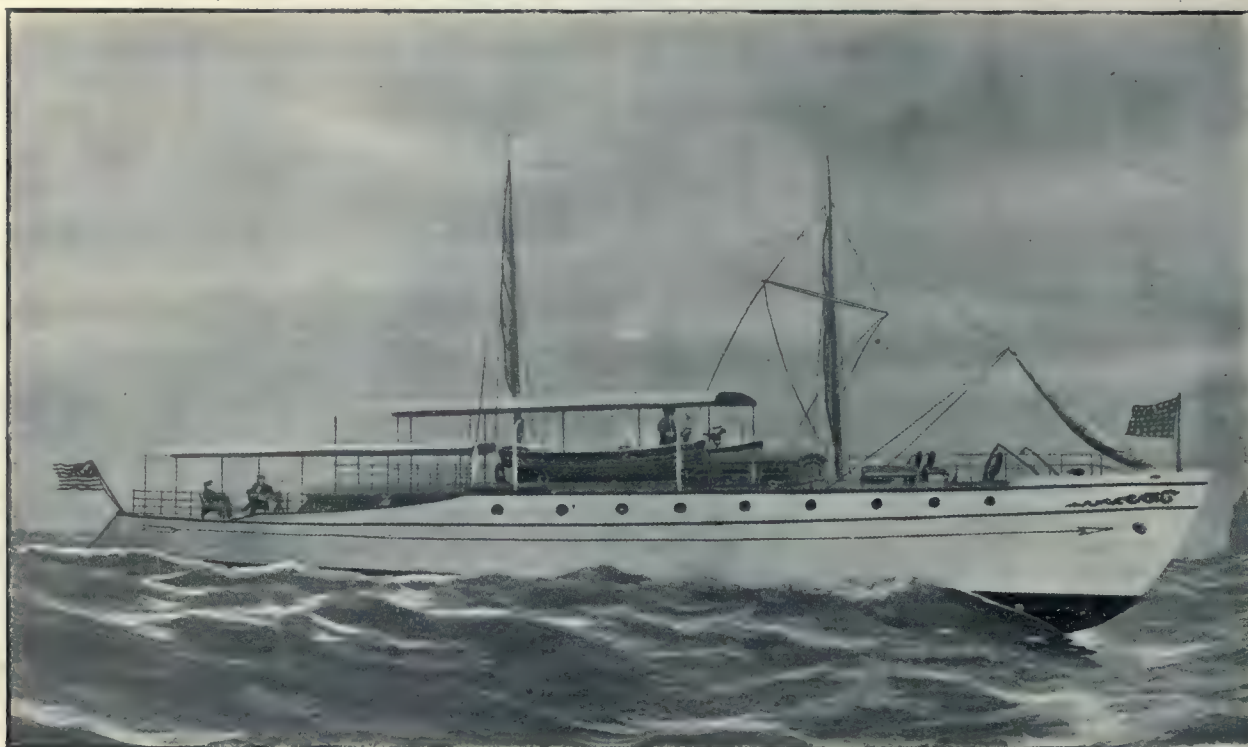
12:45 p. m. (Via Sausalito)

12:01 a. m. " "

Sunday schedule will be as it is at present with a probable addition of two more boats.

THE BONNIE DOON.

The motor yacht Bonnie Doon, the largest of its kind on the bay, was launched from the ways at the Hay & Wright shipyards on the Alameda side of the Oakland estuary, Saturday, the 17th. Designed by Henry



BONNIE DOON

J. Gielow of New York, designer of the celebrated steam yacht Hanoli, acknowledged to be the fastest steam yacht afloat, the Bonnie Doon will undoubtedly be the finest yacht, both as to speed and comfort, as there is in the bay. The yacht is 66 feet over all, 63 feet on load water line, 11 feet 8 inches beam and military mast.

Above the sheer strake are 20 inches of mahogany pierced with 12 ports on each side, and four mahogany deck skylights. The freeboard at the bow is six feet, high sides having been built for rough water in summer. Water tight collision bulkheads are provided forward and aft. The yacht is supplied with ample pump equip-

ment, a 14-foot gasoline motor launch and 12-foot dingy. Under the cockpit is a water tight compartment for gasoline.

The main cabin has high standing room, is 15 feet long and 11 feet wide. Its furniture and fittings are mahogany. Forward is the galley, then the engine room, with the crews' quarters.

The four cylinder four cycle gas engines were made by the Doak Gas Engine Company in Oakland, and utilize gasoline or distillate for fuel. The cylinders are eight-inch bore and nine-inch stroke, and the 400 revolutions intended will develop 60 horsepower.

TIDE TABLE TO WEEK ENDING SATURDAY, MAY 7.
Golden Gate Entrance to San Francisco Bay.

APRIL

Moon	Day of		Time and Height of High and Low Water									
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.	T.	H.
Full	Mon.	5	5:20	1.4	11:12	4.9	17:28	1.3	23:48	5.2		
	Tues.	6	5:55	1.1	12:15	4.9	17:56	1.6				
	Wed.	7	0:02	5.2	6:26	0.8	13:00	4.7	18:30	2.0		
	Thur.	8	0:26	5.1	7:00	0.6	13:53	4.4	19:04	2.4		
	Fri.	9	0:50	5.2	7:45	0.5	14:54	4.2	19:42	2.8		
S 3rd. quar.	Sat.	10	1:13	5.2	8:35	0.3	16:10	4.0	20:22	3.2		
	Sun.	11	1:45	5.2	9:30	0.3	17:32	4.2	21:28	3.5		
	Mon.	12	2:32	5.1	10:32	0.2	18:42	4.3	22:35	3.6		
	Tues.	13	3:50	5.0	11:35	0.2	19:34	4.5				
	Wed.	14	0:02	3.5	5:30	4.9	12:38	0.1	20:15	4.8		
P New	Thur.	15	1:15	3.1	7:00	5.1	13:36	0.1	20:48	5.1		
	Fri.	16	2:14	2.4	8:08	5.3	14:30	0.2	21:24	5.4		
	Sat.	17	3:05	1.7	9:12	5.4	15:25	0.4	21:56	5.7		
	Sun.	18	3:55	1.0	10:08	5.5	16:10	0.7	22:30	5.8		
	Mon.	19	4:42	0.4	11:05	5.6	16:52	1.0	23:05	6.0		
N	Tues.	20	5:23	0.0	12:04	5.4	17:36	1.5	23:40	6.1		
	Wed.	21	6:10	-0.3	13:04	5.3	18:18	2.0				
	Thur.	22	0:20	6.0	7:02	-0.5	14:07	4.9	19:02	2.4		
	Fri.	23	1:00	5.9	7:55	-0.5	15:20	4.5	19:53	3.0		
	Sat.	24	1:44	5.6	8:53	-0.3	16:35	4.5	20:50	3.3		
1st. quar.	Sun.	25	2:30	5.4	9:54	-0.1	17:46	4.6	22:02	3.6		
	Mon.	26	3:33	4.9	10:55	0.1	18:50	4.6	23:35	3.6		
	Tues.	27	4:52	4.7	11:55	0.3	19:40	4.9				
	Wed.	28	1:00	3.4	6:12	4.5	12:48	0.5	20:18	5.1		
	Thur.	29	2:00	3.0	7:24	4.5	13:35	0.7	20:50	5.3		
A	Fri.	30	2:42	2.4	5:25	4.5	14:24	1.0	21:17	5.3		
	MAY											
E	Sat.	1	3:16	2.0	9:18	4.6	15:05	1.2	21:45	5.3		
	Sun.	2	3:48	1.5	10:04	4.6	15:40	1.5	22:08	5.4		
Full	Mon.	3	4:20	1.1	10:45	4.8	16:10	1.7	22:24	5.5		
	Tues.	4	4:46	0.7	11:28	4.7	16:45	2.0	22:47	5.5		
	Wed.	5	5:21	0.3	12:15	4.7	17:20	2.3	23:15	5.5		
	Thur.	6	6:00	0.0	13:06	4.6	17:55	2.7	23:38	5.5		
	Fri.	7	6:40	-0.2	14:04	4.5	18:35	3.2				

Time used, Pacific Standard, 120th Meridian W.
0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	18	Mar. 30	Beacons No. 10, 12, upper harbor gone, vessels crossing bar now passings of bar buoys leaving No. 2 1000 Feet away.
Willapa Bay	27	Apr. 1	Depth at M L W in channel at Raymond 15 feet.
Columbia River	24	Feb. 6	
Nehalem River			
Tillamook Bay	13	Mar. 2	Channel shifting about $\frac{1}{4}$ mile to southward is now $\frac{1}{8}$ mile south of the whistling buoy.
Yaquina Bay	13	Mar. 12	Channel not changed.
Siuslaw River	8½	Apr. 15	Channel gone to north end of jetty and beacon on high bank marks channel now.
Umpqua River	9	Apr. 1	Channel to northward of old established ranges.
Coos Bay	17	Apr. 6	Soundings today show a ridge abreast of black buoy off end of jetty which shoaled last 2 days.
Coquille River	9	Mar. 26	2 buoys gone; channel in middle between jetties.
Rogue River.			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	8	Apr. 2	At present channel is southwest.
Humboldt Bay	18	Apr. 1	North channel 18 ft; very narrow and crooked, difficult to navigate for large vessels; about 13 feet in south channel.
San Pedro Bay	20	Apr. 15	No change in channel.
San Diego Bay	26	Apr. 3	No change in channel.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS.

Office U. S. Lighthouse Inspector, Twelfth District, San Francisco, Cal., April 17, 1909.

Humboldt Bay Entrance, California (List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 37).

Notice is hereby given that outside bar bell buoy, Humboldt Bay entrance, California, heretofore reported capsized, was replaced April 13.

Notice is also given that South Jetty Outer End Buoy 2, about 650 feet W. by N. of the submerged end of the South Jetty, heretofore reported adrift, was replaced April 13 by a first-class nun buoy.

By order of the Lighthouse Board,

R. F. LOPEZ, Commander, U. S. N.
Inspector Twelfth Lighthouse District.

U. S. Branch Hydrographic Office,
San Francisco, Cal., April 17, 1909.

A telegram from Redondo, Cal., dated April 17, 1909, states that the steamer Vanguard passed what appeared to be a piece of wrecked vessel eight feet above water, a great menace to navigation, about ten miles N. W. by W. from Point Arguello.

J. C. BURNETT,
Lieutenant U. S. N., in charge.

The regular fog signal at Tillamook Rock will be temporarily out of commission between April 20 and May 20, during which time the old steam siren will be changed to a first-class automatic siren. If thick or foggy weather occurs during the installation of the new siren a six-inch steam whistle will be blown with the same characteristics as the present signal, viz: Five second blast, ninety seconds silent interval, repeated.

The characteristics of the new automatic air siren will be: Five seconds blast, forty seconds silent interval, repeated.

The following affects the List of Lights and Fog Signals, Pacific Coast, 1908, page 13:

Maul, located on Puu Kii, small island just northerly of Kauiki head, the easternmost point of the island of Maui, and on the southeasterly coast side of Kapueokahi bay. On or about April 30 the arc or visibility of this lens lantern light will be increased from 180 to 350 degrees.

By order of the Lighthouse Board,

STANFORD E. MOSES, Lieut. Com., U. S. N.
Assistant to the Inspector, Twelfth Lighthouse District.

An automatic air siren is to be substituted for the steam fog whistle on Tillamook Rock, twenty miles south of the entrance of the Columbia river. The work will be done in the next thirty days. The characteristics of the new signal will be a five-second blast, with a forty-second interval, and repeat.

The following gas buoy lights, off the northern coast of British Columbia are reported not burning: Alford Reef, Kestrel Rock, Spire Ledge, Barrett Reef, Coast Island Range, Watson Rock and Klue Nugget Light. These lights extend from the north end of Granville channel to Metlakatla. A nuisance to navigation has been found in the discovery of Boat Harbor, near Dodd Narrows, of a dangerous rock nearly in the middle of the harbor, with a depth of nine feet on it at low water, ordinary tides, which will be known as Harbor Rock. The rock bears from the north entrance point S. 57 deg. E., 14-10 cables, and from the northern extreme of the island in the bay N. 37 deg. E., 2 cables. The north entrance point can be recognized by a conspicuous barn and other farm buildings.

The shallowest part is marked by a temporary cask buoy, painted red, and a rocky ledge extends from the buoy to the point. The position is lat. N. 49 deg. 5 min. 28 sec.; long. W. 123 deg. 47 min. 32 sec.

Vessels approaching the wharf should keep to the southern shore, which may be approached to a distance of half a cable. A temporary spar buoy moored in 6½ fathoms has been placed at the southeast extreme of the reef, which dries at low water at the northern entrance of the harbor. Lat. N. 49 deg. 5 min. 40 sec.; long. W. 123 deg. 47 min. 40 sec.

Dangerous Pinnacle Rock Off Point Tosco, Lower California.

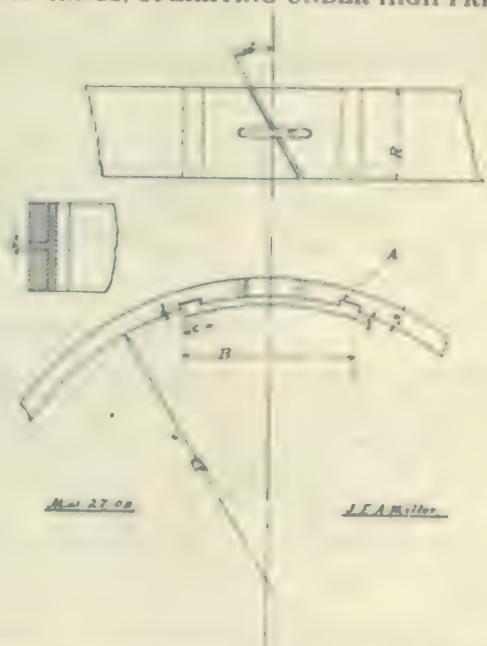
Branch Hydrographic Office, U. S. Navy, April 20, 1909, Merchants Exchange, San Francisco, Cal.

A letter from Captain William Fisher of the steamer City of Sydney, dated April 13th, to Mr. R. P. Schwerin, vice-president and general manager of the P. M. S. S. Co., reports the location by Dr. Bell of the power yacht Aloa of a dangerous pinnacle rock eight miles S 19 deg. W., true from Point Tosco, in the southern approach to Magdalena Bay, Lower California. Dr. Bell sounded on the rock and found an area of 5 or 9 feet with 14 feet of water on it, sides almost perpendicular. He buoyed the rock with an oar and sailed back to Tosco, and then trailing his patent log steamed back and found it the second time, though his oar was gone. Dr. Bell sounded it both times.

J. C. BURNETT,
Lieutenant, U. S. N., in charge.

"TIE PIECE."

FOR PISTON RINGS, OPERATING UNDER HIGH PRESSURES.



No doubt many engineers have encountered excessive abrasion of piston rings and cylinder walls, that handle high pressure in particular, with its attending loss of power and other approximate troubles and all primarily due to the "steam packing" of the rings.

Various expedients have been tried and with as varied results, always leaving a better method very much desired.

The accompanying drawing of a "tie piece" is one designed by the writer some time ago and has given very satisfactory results for cases of this kind.

The theoretical conditions we desire and aim to obtain are tight pistons and a true cylinder at all times, and this, we all know, is "only a dream" and a brief one at that; but to obtain this, it means a true cylinder and a solid ring that is a neat working fit. Even this has two strong objections; that is, if the ring is too neat a fit there is danger of it sticking from unequal expansion and other causes, and a wrecked piston is the result. If it is free to work, "safe" from the beginning, the

A modern principle of education is if you are in doubt upon a subject the next best thing to know is where to look for definite information; the proper application of this principle in business transactions is an indication of progress, and must bring about the same degree of success in the latter case as in the former, and has made the name of Weeks, Emerson & Howe, San Francisco, so well identified with the Ship Chandlery business on the Pacific Coast.

abrasion of ring and piston will be such that it will leak in a short time to such an extent that a new ring must be installed to bring our engine back to its original efficiency.

With the "cut ring" we have, as everyone knows, a "steam packed," rapid-worn ring and cylinder walls; the latter "barreled" at that.

A glance at our "tie piece" will convince one that in this we have all the good qualities of the solid ring, with additional advantages, as a determined and fixed point of expansion, yet it can contract. This obviates the possibility of sticking, and when worn to a point we set as a limit for wear, all that is needed is to remove material at "A" on either ring or lug, when we have our ring in its original efficiency. This saves a new ring; then again it will act as a dowel to keep the ring in position, and a "chock" to help center the piston, which can be shimed to suit. Then if the cylinder is "barreled" when the ring is first installed it will tend to parallel the bore again.

The only precaution to be taken is to see that the tie piece is shimmed up to the ring so lug "A" cannot get out of the grooves in ring.

This design will show the strength of "tie" to counteract the stress due to the "steam packing" of ring (for it must not be forgotten that the ring is under the same condition as a like section of a boiler shell) and at the same time not approaching the limit of strength of this section of the ring. It further shows its simplicity and cheap machining at its original construction.

In summing up, it will be found that the essence of this "tie" is the projections or lugs and their shape at "A." The tie piece may be made of bronze or cast steel (the latter preferred).

In conclusion will give the proportions that are satisfactory from cylinder rings from 25 inches to 45 inches in diameter.

Referring to the drawing, let D equal inside diameter of ring, then R equal .16 D; then from R we have, g equal .23 R; B equal .2 R; C equal .27 R; E equal .1 R; and F equal .25 G. Of course these proportions may be modified to suit a particular case, but due regard must be given the strength of ring at the grooves, projections or lugs and its shape at "A."

(Signed) J. E. A. MILLER, Chief Engineer.

Address: S. S. Santa Rosa, Pier 9,
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March 31, 1909.

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SAN DIEGO PILOTAGE AND TOWAGE RATES

The following tariff is established for pilotage into and out of San Diego harbor:

All vessels under five hundred tons, five dollars per foot draught; all vessels over five hundred tons, five dollars per foot draught and four cents per ton for each and every ton register measurement; when a vessel is spoken, inward or outward bound, and the services of a pilot are declined, one-half of the above rates shall be paid.

Towboat service is rendered at a fixed scale of compensation as follows:

PER NET REGISTER TON	400 and under 600	600 and under 800	800 and under 1000	1000 and under 1250	1250 and under 1500	1500 and under 1750	1750 and under 2000	2000 and under 2250	2250 and under 2500
To Sea. San Diego to Whistling Buoy. If towed from Whistling Buoy to San Diego, charge the same as to Sea. Docking and undocking included in these rates if vessel proceeds immedi- ately to or from dock.	\$50 00	\$65 00	\$75 00	\$90 00	\$100 00	\$110 00	\$120 00	\$130 00	\$140 00
Docking and Undocking.	15 00	17 50	20 00	22 50	25 00	27 50	30 00	32 50	35 00

COASTWISE VESSELS	100-150	150-220	200-250	250-300	300-350	350-400	400-450	450-500	500-550	550-600
To or from Sea as above.	\$15 00	\$17 50	\$20 00	\$22 50	\$25 00	\$27 50	\$30 00	\$32 50	\$35 00	\$40 00
Docking.	5 00	5 00	5 00	5 00	5 00	5 50	6 00	6 50	7 00	8 00

HUMBOLDT BAY PILOTAGE AND TOWAGE RATES

Pilotage over Humboldt Bar is not compulsory. Pilotage charges are included in the towage charges, the masters of tugs being licensed pilots of same.

Towage—Light vessels inward bound to load lumber are towed both inward and out to sea, when loaded, on the basis of 50 cents per thousand feet of lumber.

Loaded vessels bound in pay at the rate of 12½ cents per ton, figured on the basis of cargo on board, and an additional charge of

50 cents per thousand feet of lumber is charged for taking them to sea.

For moving vessels in port the charges vary according to size of vessel, and whether loaded or light.

For light vessels the charge is from \$10 to \$25; from Red Buoy (middle of Bay) to Arcata Wharf or Field's Landing the charge is from \$10 to \$40, light, according to size.

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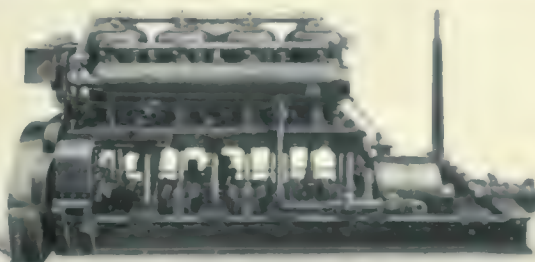
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PACIFIC MERCHANT MARINE



SATURDAY, MAY 1, 1909

VOL. II

NO. 7

CONTENTS

American Shipping (Continued)
Alexander R. Smith

The Isthmian Canal


Pacific Coast Vessels (Illustrated)
S. S. Lurline

Marine Notes of Pacific Coast Ports
Editorial

Opening of the Yachting Season
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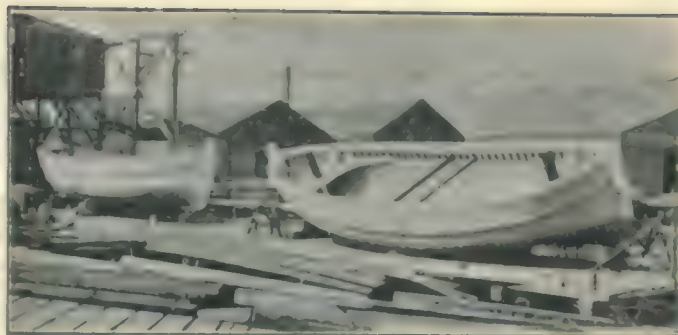
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Volume II

SATURDAY, MAY 1, 1909

Number 7

AMERICAN SHIPPING

BY ALEXANDER R. SMITH

(CONTINUED)

A Modified Free Ship Suggestion.

The principle outlined in the Hanna, Frye and Payne bills, of admitting foreign built tonnage to American registry, where such tonnage is owned by American citizens or corporations, on condition that equal tonnage to that so admitted shall be built by its owners in American shipyards, all such tonnage so admitted or built being confined to the foreign trade, is one that is deserving of more thoughtful consideration than it has hitherto received. The fact that such foreign-built American-owned tonnage as is now engaged in our foreign trade is likely to wear out in that trade because of the physical impossibility of substituting for it an equal tonnage of American construction, even under the operations of the most liberal and encouraging laws for the upbuilding of our deep sea shipping, should minimize objection to such a departure, if the resultant benefits outweigh the possible injuries. During the fiscal year which ended on June 30, 1905, the increase in the value of our seaborne foreign commerce amounted to \$162,871,775. The value of the entire foreign commerce carried that year in the 943,750 registered tons of American vessels then engaged in our foreign trade, was \$290,607,946.

Startling Statistics of Our Commercial Growth.

This shows that the increased seaborne foreign commerce was equal to 55 per cent of all that was carried in American vessels. For vessels of the United States in that year to have carried what they did carry and to have succeeded to the carrying of our increased seaborne foreign commerce alone would have necessitated a construction in excess of 500,000 registered tons of new vessels—an accomplishment entirely beyond the bounds of possibility. In the fiscal year which ended on June 30, 1906, the increase in the seaborne foreign commerce of the United States amounted in value to \$296,205,151, while that carried in American vessels amounted in value to but \$322,347,205. For American vessels to have carried the foreign tonnage last year that they did carry, and to also have carried merely the increase alone in our seaborne foreign commerce would have necessitated the construction in American shipyards of 92 per cent additional tonnage, or approximately 864,000 tons of new ships—again an accomplishment that would, under the most favorable conditions, be utterly unattainable.

Further Consideration of Modified Free Ship Provision.

If, therefore, the present American owners of foreign vessels could be induced to place their vessels under American register, under adequate aid from the Government to enable them to operate them in profitable competition with the other foreign vessels engaged in our foreign carrying, and they would agree to build in American shipyards new tonnage equal to that so admitted, or even to agree to build in American shipyards only 50 per cent as much new tonnage as was so admitted, the result might be highly beneficial to American shipbuilders and shipowners, and of the greatest possible advantage to the United States from a naval and military point of

view. Of course, it goes without saying that the bare registry would be unacceptable. It is unacceptable now. Coupled with a requirement that additional tonnage should be built in American shipyards, and carrying no other advantage, the privilege thus granted would be unavailed of, and would accomplish nothing. But, with adequate compensation from the Government to enable the owners to overcome the adverse conditions that would follow the American registry of such vessels, and that would enable the owners of the new tonnage to operate it in profitable competition with foreign tonnage, there might be a large accession of tonnage under the American flag in our foreign trade. The admission of such foreign vessels, so owned, might be restricted in the matter of size, horse-power and age, and a time limit might be wisely fixed beyond which no more such admissions would be permitted. Bonds could be required for the faithful performance of the obligation to build the additional tonnage specified in the bill. There is a large tonnage of foreign vessels owned by American citizens who are acquainted with the business of operating vessels in our foreign trade, and who might naturally be expected to take advantage of any reasonably remunerative and stable act for the encouragement of American shipping in the foreign trade. Despite the fact that Senator Frye felt constrained to eliminate a similar provision from a shipping bill only a few years ago, in deference to what he properly characterized as a mistaken but powerful public sentiment in opposition, the suggestion might be renewed advantageously to the Government, to our shipowners and shipbuilders, if enacted into law.

Steel Makers Should Subsidize Our Shipbuilders.

Still another suggestion may wisely be put forward at the present time, for the thoughtful consideration of those who are interested in the building up of our shipping in the foreign trade. If the powerful corporations that are engaged in the manufacture of steel and iron, the material most used in the construction of modern vessels, could form a combination for the purpose of offering, for a fixed period, a substantial bounty for the construction in the United States of ships built of American steel, much might be done to stimulate a large increase in our foreign-going shipping. Of course, it is to be remembered that the higher construction cost in American shipyards is but one of the barriers to an increased American merchant marine. The increased cost of operation, covering the many years of the life of a ship, is a more serious matter, and a far greater barrier to the construction of such vessels. Such a suggestion as is here made, therefore, would be impracticable of adoption, were the Government disinclined to cooperate, as, for instance, is provided in the pending Merchant Marine Commission's shipping bill.

PROGRESS OF THE PANAMA CANAL.

The total of canal excavation during the month of March, 3,880,337 cubic yards, is the greatest number of yards excavated for one month during American occupation. In addition to this amount, 182,295 cubic yards were removed to facilitate construction work, making a grand

total for the month of 4,062,632 cubic yards. The average daily excavation was 143,716 cubic yards, or 5 cubic yards were removed every second in the day of eight hours.

The hull of a Belgian type ladder dredge, which was abandoned by the French in the Chagres river at San Pablo, has been cut into four parts, loaded upon cars and will be hauled to La Boca. There the hull will be put together again and such repairs made as are necessary to put it into condition for service as the float of a marine derrick. A crane with machinery will be installed capable of lifting 25 tons. The chief use to which it was intended to put this floating crane is in removing old wrecks from the canal prism between Miraflores and La Boca. These wrecks are old French dredges and other shipping sunk in the channel of the French canal near the crossing of the Rio Grande, or that had been laid up on the banks of the Rio Grande and had floated into the canal at high water. Those that lie directly in the prism of the canal will be blown up with dynamite and loaded upon barges to be towed out to sea and sunk in deep water.

In the construction of the concrete plant at Gatun and the lock handling plant the factor that will determine the

Flamenco Island. Ships coming into the port enter this new channel between parallel lines of marking buoys and keep in about the center until abreast of the La Boca wharf.

The channel is safe at mean tide for ships drawing 18 feet or under, and for ships drawing 18 to 22 feet at three-quarters tide; but heavier draft ships should enter or depart at approximately high tide. The limiting depth in the center of the channel is about 30 feet at mean tide, which is found from along the wharf to about 4,000 feet south. During the lower 2,000 feet of this distance the channel is only 350 feet at bottom width.

The section that is undredged is on the east side of the channel. Work in this will be finished by June 1. From this point 4,000 feet south of the wharf, to a point 10,000 feet south of the wharf the channel is open to its full bottom width and is 40 feet deep and from the latter point to deep sea it is open to its full width and is from 45 to 55 feet deep. Any information that is required by navigation interests will be cheerfully furnished by Division Engineer S. B. Williamson at Corozal, C. Z.

One of the Belgian-type ladder dredge left by the French on the banks of the Chagres at Trijoles and floated down



THE TRACK SHIFTER AT WORK ON COROZAL DUMP

Doing as Much Work in Two Hours and a Half as Five or Six Hundred Good Workmen Could Do in the Same Time.

completion is the power plant. The plans for the powerhouse have been approved and the building itself is well under way, but the boilers have not yet arrived on the isthmus.

One of the unloading cableways for the rock and sand docks is ready for operation, and the construction of the other two is well advanced. The structural steel work on the cableway plant for the locks will be finished this month. Two-thirds of the machinery is now on the isthmus, and it is probable that the whole plant will be ready for use in June.

The rock and sand dock is completed and the cement dock is nearing completion. The tunnels through which the electric cars will run under the cement dock and the rock and sand charging bins are completed and the bed for the railway is graded up to the mixers. The eight mixers are set up and can be in readiness for operation in a few days.

On Monday April 5, the Pacific Division began dumping spoil from the canal into the French channel, at the crossing of the breakwater to Naos Island. All ships entering or leaving the port of Ancon now use the new channel to the canal, the sea entrance of which is about a mile southwest

to Cristobal during the past rainy season, was in such good condition that not over \$10,000 will need to be expended on it before it can take up its work with the dredging fleet at the Atlantic entrance. This dredge is No. 5, and is now at the Cristobal marine shop being rebuilt. Most of the hull, two of the boilers and the main engines are in such good condition that they require overhauling to make them fit for service. One new boiler will be installed. The principal change being made is the extending of the ladder so that the dredge will dig to a depth of 41 feet, the depth required at the Atlantic entrance, instead of 32 feet for which it was originally designed. This will make six of the old French ladder dredges now in use.

SOUTHERN COAST NOTES.

San Pedro.

The Grays Harbor Construction Company has acquired a large amount of level land along the west side of the Wishkal River and will construct a long line of wharfage with a view to locating factories, the first of which will be an asphalt plant.

Los Angeles.

The Board of Public Works has requested the Western Boat Works to prepare plans and estimates of the municipal ferry to be operated across the San Gabriel River about 200 feet north of the draw-bridge.

Redondo.

The work of extending wharf No. 3 115 feet, so as to reach a greater depth and accommodate larger steamers, has begun, and it will be completed about July. The improvements will cost about \$20,000. All the passenger steamers of the Pacific Coast Steamship Company will in future land at wharf No. 3 instead of wharf No. 1.

Wilmington.

It was proposed at a meeting of the trustees of the city to dredge the municipal channel to a depth of twenty-five feet instead of eighteen, as is now under contract, thereby accommodating deep-draft vessels. It will be necessary to bond the city for \$60,000 to complete the work.

Pacific Grove.

The Associated Oil Company's oil barge Roderick Dhu, which stranded near Point Pintos April 25, will be a total loss. The barge is valued at \$60,000.

Monterey.

Having on board a cargo of 55,000 barrels of oil, the steamer Porter departed April 18 for Juneau, Alaska.

HAWAIIAN NOTES.

The ship Dirigo, bound from Baltimore to the Hawaiian Islands, is said to have been stranded on the coast of Molokai, one of the Hawaiian Islands. The Dirigo is a four-masted steel vessel, built and owned by Seawall & Co., of Bath, Me. The vessel had a cargo consigned to the United States Government.

Captain Mosher has been appointed harbormaster at the port of Hilo. He was for many years a master in the service of the Inland Steam Navigation Company.

Captain Miller has equipped the old steamer Mo Solii with a gasoline engine, and on the trial trip it proved entirely satisfactory to the new owner. It is not known what the vessel will be used for, but Captain Miller's hobby of collecting any and every boat that no one wants and making the engines grind a barrel of money out of them will no doubt stand him in good stead.

The report stating that the British steamship Kish entered Honolulu in a sinking condition on April 3 was erroneous, as the vessel was forced from her course by blizzards, strong head winds and high seas. The Kish is carrying 4,000,000 feet of lumber from Vancouver to Taku, China.

NORTHERN COAST NOTES.**Portland.**

Captain Charles F. Pond, who has been in charge of the Thirteenth Lighthouse District since July of last year, has been assigned to the command of a new armored cruiser. Commander J. M. Ellicoot, now master of the supply ship Solace at Charleston, S. C., will succeed Captain Pond as inspector in charge of the Thirteenth Lighthouse District.

A log raft containing 7,000,000 feet of lumber is in course of construction at Stella, Wash., on the lower Columbia, and will be towed to San Francisco in May or June.

The Oregon State Pilot Commissioners met in Astoria April 17 and effected a temporary organization. The commission consisted of F. C. Hagemann, F. Taylor and F. Pendleton and was formed for the purpose of granting licenses to those who are capable of piloting ships in and out of the Columbia River.

The steamer Multnomah, belonging to Captain J. Good, was sold to F. F. Foster of Vancouver, Wash., who will operate her in the general towing trade on the Columbia River.

The local United States Weather Bureau will issue marine meteorological charts of the North Atlantic and North Pacific Ocean every month, beginning in July.

Seattle.

The Charles Wilson Company has placed the steamer Wellesley on the San Francisco-Seattle route, making eight coastwise vessels this company is now operating.

The tugboat Atlas, built by A. J. Garrod for W. Grant of Harper, was launched April 12 and was put in commission immediately. The Atlas is fifty feet long, of twelve-foot beam and draws six feet of water. Her engine is a sixty-five horsepower Atlas gas engine.

The U. S. S. Milwaukee has broken the world's record for coaling ship by stowing away 1,500.7 tons in nine and one-half hours. The average per hour was 158 tons, and the best record for one hour was 208 tons. The world's record heretofore was held by the battleship Virginia. A total of 218 men, including those who weighed and tallied the coal, took part in the work.

The International Steamship Company has inaugurated a one-way rate of 25 cents between Seattle and Victoria on its steamer Chippewa. It is not thought that the Canadian Pacific vessels will meet the cut. This is the first action in the rate war between the two rivals this season, but before the season is over rates will doubtless be at a minimum. In a later report the 25-cent rate was abandoned and a one-way rate of \$1 established.

The Alaska Steamship Company, which has formerly shared pier No. 1 with the Alaska Coast and the Alaska Pacific Steamship Companies will shortly move to pier No. 2.

The British steamer Yoserie, of the Andrew Weir line, has been quoted at 15 per cent. The steamer Yoserie struck the wreck of the steamer Valdwa while on her way from Baltimore to Puget Sound and was so badly damaged that she was beached at Lebu, Chile. The cargo of the vessel will have to be discharged before anything can be done to repair the vessel and take her off the beach.

The British bark Hawthornbank, also belonging to the Weir line, is quoted at 3 per cent. The Hawthornbank is 228 days out from Termuzen, Holland, with a cargo of creosote for Eagle Harbor.

The British ship Australian is on the board at 90 per cent and there is very little hope for her. The vessel sailed from Matzalan November 25 for Sydney and has never been spoken.

The sailing ship Erskine M. Phelps, which sailed from Port Townsend, Wash., January 6 for New York, was not spoken from the time she left until she reached her destination April 22. The Erskine M. Phelps cleared from Puget Sound with the largest cargo of salmon ever shipped from this district—over 100,000 cases.

Fifty per cent has been paid on the British steamer Koloma, which was sunk at Singapore several months ago to extinguish a fire in her cargo of oil.

The British steamer Cumbal, of the Grace line, which was ashore at Chilor Island, on the South American coast, has been floated. Twelve guineas per cent has been paid on the ship.

Five per cent has been paid on the German bark Alsterfee, which sailed from Caleta, Breana, December 11, for Port Phillips head.

The steamer St. Croix, recently purchased in the East by Schubach & Hamilton, will go in the Alaska trade. She will remain on this run until the opening of Bering

Sea navigation and then go in the Nome trade for the season.

The Norwegian bark Skjold arrived at St. Vincent in distress, with cargo shifted and lower deck beams broken. Upon being surveyed she was found to be in an unseaworthy condition and her general cargo, which was consigned to Henry Lund & Co. of Seattle, will be transferred to another vessel.

The arrival of the Alaska Steamship Company's freighter Seward at Cordova will be eagerly watched for, as the vessel left Seattle in spite of the protests of a majority of the marine underwriters. At the time of sailing she was drawing 21 feet 7 inches mean over a foot to bow. Should anything happen to the Seward on her way to Cordova no insurance could be collected on either the vessel or the cargo, as the local representatives of the marine insurance companies applied to their companies to have the insurance canceled.

Officers and trustees for the Northwestern Commercial Company, owned by J. Pierpont Morgan, the Guggenheims and the various subsidiary corporations, were elected for one year at the annual meeting of the stockholders. The election concerned the Northwestern Commercial Company, Northwestern Steamship Company, Northwestern Fisheries Company and the North Coast Lighterage Company. The following officers were elected: President, W. R. Rust; vice president, S. W. Eccles of New York; secretary and treasurer, D. H. Jarvis, and the following trustees: E. S. Pegram, W. E. Bennett, W. P. Hamilton and Stephen Birch of New York, and W. H. Bogle and Moritz Thomson of Seattle.

Owing to the inability of Captain John Sutherland to secure a crew, the sailing of the twenty-eight ton tug Grayling to Panama was postponed indefinitely. A voyage down the Coast in so small a vessel is anything but agreeable and mariners are not inclined to attempt a trip of this character. The Grayling will probably be shipped to its destination.

Astoria.

The North Pacific Steamship Company has chartered the gasoline schooner Gerald C. for service between Eureka and the Eel River, a trading port on the California coast south of the entrance to Humboldt Bay. The schooner formerly operated between Astoria and small harbors on the Oregon coast.

Eureka.

The work on the new steam schooner which C. R. McCormick & Co. are building for themselves is being rushed and about thirty-five frames of the vessel have been placed. The yards will doubtless run full blast the remainder of the season, as the company expect to secure the contract for the construction of a new steam schooner, in addition to one now in the course of construction.

Capitalists are contemplating the establishment of a marine ways large enough to accommodate the biggest steam schooner entering this port. Some years ago a similar venture met with failure, and from that time on the only ways here was such as would handle but the smallest ships.

Victoria, B. C.

Because of the continuance of restrictions and the presence of such a great fleet of Japanese vessels, thirty-nine going into the Bering Sea this year, the Victoria Sealing Company has decided not to send out any schooners this season.

Aberdeen.

A petition signed by every shipman in this port was sent to the chief of the lighthouse service, asking for the

placing of certain buoys and beacons that mark important parts of the channel from Grays Harbor bar to Aberdeen which have been missing for a long time.

South Bend, Wash.

Articles of incorporation have been filed by the Coulter Towboat Company, with a paid-up capital of \$11,000. The company intends to operate a fleet of towboats on the Willapa Harbor and its tributaries. Their fleet at the present time consists of the tugs Laurel and Myrtle.

LOCAL NOTES.

While heavily laden with freight consigned to Oakland the steam schooner Helen crashed into the Webster Street draw-bridge. The vessel escaped injury, but the bridge will need repairing.

The local immigration officials are investigating the action of the Jebesen & Ostrander liner Ella, which vessel recently arrived in San Francisco with several passengers from Seattle. The officials of the Jebesen & Ostrander line claim that although the passengers in question bought their tickets in Seattle, they boarded the vessel at Vancouver, B. C., thereby evading the coasting laws which make it impossible for a freight vessel to carry passengers between two American ports. The immigration officers assert that the method of the line in carrying passengers coastwise is in the nature of a subterfuge.

P. Russetof, the Russian coalpasser on the army transport Sheridan, who was arrested on a cablegram from the United States marshal of Honolulu for smuggling, was ordered sent back on the vessel by United States Commissioner Heacock. The man is wanted for smuggling ninety cigars ashore at Honolulu. According to Russetof there is wholesale smuggling going on in the transport service, as he defended his conduct by stating that he saw other firemen and sailors stowing away large quantities of cigars and other things and later taking them ashore, so he thought he would do likewise. The customs authorities do not credit the man's story, as the effects of the sailors are scrutinized very carefully upon going ashore.

Olsen & Mahoney have secured the contract to tow the army steamer Captain Antone Springer to the Columbia River. The Captain Springer will be stationed at Astoria in connection with the coast defense. The Government is building many of those steamers, and one or more of them will be assigned to each artillery district. Under the terms of the contract Olsen & Mahoney are required to take out insurance that will reimburse the Government in case anything happens to the tow.

The Associated Oil steamer arrived in San Francisco Bay from Honolulu, by way of Gaviota, towing the schooner Monterey and the tug Rover. In order to withstand the heavy seas a bulwark was built around the Rover's bow before leaving Honolulu. The Rover will be used in towing oil barges around the bay.

The Merchants' Exchange has been presented with a full-rigged model of the American ship Josephine by Captain A. Pilsson of the Tiburon ferry. The time consumed in the building was three years, but if Captain Pilsson could have heard the exclamation of admiration from the throng which has constantly surrounded the model since its exhibition he would have been amply compensated for his painstaking labor.

Fire and water damaged the Pacific Coast steamship City of Pueblo to the extent of \$5,000 on Friday, the 23rd. The fire was caused by defective electric wiring, starting among the life preservers.

Mail will be received at the local postoffices for western and interior Alaskan ports beginning May 1 and continuing throughout the open season of summer. The first sailing affording this opportunity will be that of the steamer Corwin, which sails from Seattle, Wash., May 10, 1909.

The schedule of the wrecked steamer Indiana will be taken by the P. M. S. S. Aztec, which has lately been engaged in the coffee trade along the Central American coast. The Aztec arrived at Ancon April 28 and will take the business that has been waiting for the Indiana.

The steamer Melville Dollar arrived in port Monday, April 26, with 1,000 tons of freight from the wrecked P. M. S. S. Indiana. The rest of the cargo is of no value whatever, as it is entirely ruined by water. The freight brought by the Dollar steamer included 7,500 sacks of coffee, 150 mahogany logs, 200 tons of construction iron, four lifeboats, a liferaft and the cabin furniture and fittings of the steamer.

On her return trip from Southern California, on which she inaugurated a new service between Puget Sound, San Francisco and San Pedro, the Alaska-Pacific S. S. Admiral Sampson steamed from San Pedro in twenty-seven hours, which is much better than the average time consumed in the passage.

The tank steamer Niagara arrived in port April 27, in ballast, for the Standard Oil Company. Although owned by the Standard Oil Company, the Niagara is under the German flag. The steamer will go on the Hunters Point drydock to be cleaned, painted and overhauled. The Niagara is the finest and most modern of all the oil-tankers on the Pacific.

The Independent Steamship Company's steamship Hanalu, operating between San Francisco and San Pedro, was equipped with a wireless apparatus April 25.

San Rafael—That a common anchor should have the extreme tenacity to deliberately pilfer 150 feet of garden hose from the deck of a passing barge and with almost fiendish ingenuity arrange the evidence so as to make it appear, circumstantially at least, that a human hand had accomplished the deed, was the cause of Henry Garland, captain of a bay lumber schooner spending a night in jail.

Garland, after unloading his lumber cargo, headed for the bay, but at the mouth of the canal the boat struck on a shoal. A man was sent forward to drop the kedge anchor and he discovered the hose dangling to the anchor fluke.

Before the schooner was floated an officer, armed with a search warrant, came aboard. He was shown the hose still dangling from the anchor, and Captain Garland gave an elaborate description of the dastardly plot of the anchor, but alas! the officer was incredulous.

MEETING OF THE BOARD OF STATE HARBOR COMMISSIONERS, THURSDAY, APRIL 29, 1909.

The hour of 9:15 o'clock a. m., the time specified for the opening and considering of bids for furnishing material and constructing a shed on pier No. 21 (Filbert Street wharf), on the waterfront of the C. and C. of San Francisco, having arrived, the proposals were opened, and after due consideration the contract was awarded to W. L. Graff on the basis of his bid for the sum of \$12,843. said Mr. Graff to give a bond in the sum of \$65,000, with a surety company as sole surety.

The hour of 9:15 o'clock a. m., the time specified for opening and considering bids for furnishing Portland cement for use on the waterfront of the C. and C. of San Francisco having arrived, the following proposals

were opened: Standard Portland Cement Company, \$1.90 per barrel; Santa Cruz Portland Cement Company, \$1.90 per barrel.

The secretary was directed to return checks to all save the two lowest bidders.

The bid of the Pacific Portland Cement Company was rejected unopened, as it arrived after the opening of the other bids and after the time specified.

The contract with the Judson Manufacturing Company for furnishing structural steel at section No. 7 of the seawall was signed by the board and a bond in the sum of \$800 was approved by the board.

The attorney of the board, in a communication dated April 23, 1909, states that he appeared before the police committee of the Board of Supervisors on that day and explained the reasons leading to the request that an ordinance be proposed prohibiting smoking on wharves, etc. He also stated that the committee named will recommend to the board that the ordinance be passed.

The Oceanic Steamship Company, in a communication dated April 27, 1909, draw attention to repairs needed at Pacific Street wharf and also to the instability of the foundation of their large scales at that dock. The matter was referred to the engineer of the board for report and recommendation.

George N. Kneass, in a communication dated April 26, 1909, asks that the portable building belonging to the State, now blocking Illinois Street, be moved so that teams may go out Illinois Street and thus avoid the inconvenience of going six blocks out of their way by reason of said obstruction. The engineer of the board was given power to act.

F. S. Stratton, collector of customs, in a communication dated April 26, 1909, states that the customs service has no further use for the scalehouse now located at pier No. 44, but that there is use for such scale on the bulkhead at Broadway No. 1, and asks permission to transfer said scalehouse from the place first designated to the bulkhead at Broadway No. 1. The permission asked for was granted.

The Pacific Tank Company made renewed application for 200 feet of wharf space between the Mercantile Box Company and Fourth Street, in the event of the wharf being vacated. The matter was referred to the chief wharfinger.

The National Packing Company requests certain rearrangement of their assignment at seawall lot No. 4, stating particulars of such proposed rearrangement. It was ordered filed, and on motion, duly seconded and carried, the Midland warehouse was assigned to that portion of seawall lot No. 4 beginning 100 feet from the building line at the intersection of Bay and Kearny streets and extending thence north to what is known as the Harbor warehouse spur or the building line on East Street; thence 165 feet to the point of beginning square feet; rent fixed at \$129 per month, payable in advance, beginning May 1, 1909, and to continue during the pleasure of the board.

On like motion, so much of the assignment of space on seawall lot No. 4 made to the National Packing Company on January 1, 1909, as is included in the above assignment to the Midland warehouse is rescinded to date from May 1, 1909, and the rental for the portion not so included is fixed at \$156 per month.

Lieutenant J. C. Burnett, in charge of the United States branch hydrographic office, San Francisco, informed the board that the Government having installed a time-ball system of its own on the roof of the Fairmont Hotel the one on the tower of the Ferry Building will not be operated after May 1, 1909, and thanked the Board of State

Harbor Commissioners for the use of its system and for its prompt and courteous compliance with all requests made for repairs thereto.

The Metropolitan Trust and Savings Bank advised the board that it holds an order from the Gray Brothers Crushed Rock Company on the Board of State Harbor Commissioners for the sum of \$12,000, payable out of the final payment to become due them on their contract for the construction of a portion of the seawall, and asks that it be noted on the records of the board that said bank holds such order; and also asks to be advised whether such amount may be properly payable. The matter was referred to the attorney of the board.

The engineer of the board reported in relation to the extension of the heavy girder construction—said construction on the Belt Railroad—recommends the purchase from the Pennsylvania Steel Company of 250 brace tie plates, 350 plain tie plates and 50 pairs of channel joints, at a cost of about \$400 f. o. b. San Francisco. The secretary was directed to invite informal bids for furnishing said material.

That the Pacific Construction Company is now entitled to the 25 per cent retained on estimate No. 5 (March 25, 1909) of contract for furnishing materials and constructing bulkhead wharf along section No. 12 of the seawall, the amount due being \$14,775. The bill was ordered paid out of the San Francisco seawall fund.

Also that M. M. Finlayson is now entitled to the 25 per cent retained on his contract for alterations on ground floor, north wing of Ferry Building, the amount due being \$5,905.75; was allowed and ordered paid. The bill was allowed and ordered paid.

Also that Frank Gallagher is now entitled to 25 per cent retained on his contract for furnishing materials and constructing the chief wharfinger's office, the amount due being \$872.75, which was allowed and ordered paid.

Also that Healy-Tibbitts Construction Company is now entitled to the 25 per cent retained on its contract for delivering rock for a cross embankment at Fisherman's wharf, the amount due being \$744.71, which was allowed and ordered paid.

Also that J. I. Mihovich, contractor for furnishing materials and constructing a shed on pier No. 8 (Howard Street wharf No. 2) has completed the work and the contract price, \$750, was ordered paid, less the usual 25 per cent, which will be retained for thirty-five days.

Also that John G. Sutton Company, contractors for furnishing and installing two hot-water heating plants for offices on pier No. 42 and one for pier No. 44, have completed work and the contract price, \$620, was ordered paid, less the usual 25 per cent, which will be retained thirty-five days.

Also that Healy-Tibbitts Construction Company, contractors for furnishing materials and labor for the construction of a concrete bulkhead at Jackson Street, have completed the work and the contract price, \$960, was ordered paid, less the usual 25 per cent, which will be retained for thirty-five days.

Also submitted bill of Healy-Tibbitts Construction Company for extra work done on concrete bulkhead at Jackson Street, amounting to \$854.79, which was allowed and ordered paid.

Also that Mercer-Fraser Company, contractors for furnishing materials and constructing a wharf along Illinois Street south of Santa Clara Street, have to date furnished and incorporated material amounting to 18 per cent of the total contract, and 18 per cent of the contract price, \$57,741, less the usual 25 per cent, was ordered paid.

Also that Healy-Tibbitts Construction Company, con-

tractors for furnishing materials and constructing pier No. 38, have to date furnished and placed materials amounting to 15 per cent of the total contract, and 15 per cent of the contract price, \$41,850, less the usual 25 per cent, was ordered paid.

Also that Robert Wakefield, contractor for furnishing materials and constructing pier No. 40, has to date furnished and incorporated materials amounting to 90 per cent of the contract, and 90 per cent of the contract price, \$302,400, less the usual 25 per cent, was ordered paid.

The chief wharfinger in a report states that J. Barbeitta will vacate the three box stalls now used by him at Fisherman's wharf, commencing May 1, 1909, and in future will occupy but two. On motion J. Barbeitta was allowed to relinquish one of the three boxes and pay for the other two at the rate of \$10 per month each.

Also in the matter of the application of the Petaluma Transportation Company for berth space at the east end of Washington Street wharf, it was moved and carried that the assignment of 135 feet berth space on the north side of Washington Street wharf, commencing 460 feet from the bulkhead and extending easterly along the north side of Washington Street wharf, was assigned to the Petaluma Transportation Company; rent fixed at \$67 per month, beginning May 1, 1909.

On like motion a berth space of 135 feet, commencing 675 feet from the bulkhead and extending easterly along the north side of Washington Street wharf, was assigned to the United States naval training station; rent fixed at \$50 per month.

On motion it was decided to put in a spur track, as per understanding with the Whittell Warehouse Company, and the engineer of the board was ordered to prepare plans and specifications therefor.

The Board of State Harbor Commissioners will meet Monday, May 3rd, at 9:30 a. m.

PERSONAL.

A. N. Walton has been removed from his position as U. S. Inspector of Hulls at Juneau, Alaska, through the complaint of John Birmingham. Walton was charged with neglect and failure of duty.

Captain John Deering will probably take the place of Walton.

The license of John Flink, chief engineer of the river steamer Weitchpec, plying on the Sacramento river, has been suspended for three months by Inspectors Bulger and Bolles. On March 11 low water and a dirty boiler caused the sagging of the crown sheet and pulling out of stay bolts, which resulted in the scalding to death of Elmer Denlis, a fireman on the Weitchpec.

CANADIAN GRAIN CLAUSE STOPPED.

Toronto, Ont.—The grain section of the Dominion Marine Association at a meeting held in Toronto Wednesday, decided to abandon the new clause in the bill of lading limiting the shortage on grain to one-half bushel in a thousand bushels. Certain American vessels and several Canadian ships were accepting charters irrespective of the clause and as a result the Canadian grain trade was being diverted to Buffalo, the situation becoming so serious that the Dominion government wired the association to revert to the old order of things, and vessels will now accept shipments on the best terms they can make.

It has been reported that Mr. F. H. Johnson has given up the idea of building a 56-foot power house boat, and will, instead, build a speed launch intended to be faster than anything on this coast.

Pacific Merchant Marine

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The benefits to accrue from the construction of an Isthmian canal have been evident to the world since the discovery of the western Continent, though every conceivable argument has been used for and against the project. History is replete with information from which to draw conclusions, and make comparisons of the motives which prompted the ayes and noes in the discussion of this subject and shows the vast amount of energy expended, and the one prevailing object—commercial supremacy and its strategic value—which is seen on every page written upon the subject of a canal, and which was the cause of interest in the canal in this country.

The first American interest in the canal was aroused in 1875, from surveys of the isthmus made by Commander E. P. Hull, U. S. N., but, owing to internal development, the financial condition of, and subsidies being granted by, the United States for the building of railroads, and mainly to the opposition of railroad interests, the construction of a canal by the Government was abandoned.

In 1880 Ferdinand de Lesseps organized a French company which began operations in 1883, and vigorously prosecuted the work of construction until 1889, spending \$156,000,000, when the company failed and in doing so involved many of the high officials of France and the president of the company. The affairs of the company remained more or less unsettled until the total assets of the company on the Isthmus were purchased by the United States in May, 1904, at a cost of \$40,000,000, from which time the work has progressed.

French operations on the Isthmus made many advocates in America of the policy of Government control and the building of a canal by the United States Government. Our territorial relations to the Far East, our insular possessions on the Pacific, and the marvelous benefit to be derived by the Pacific Coast states, were arguments used in favor of Government control of the Isthmian canal, either of which was sufficiently important to decide this vital question. But let us observe, now after five years of active work on the Isthmus and the expenditure of \$300,000,000, to what extent these benefits are likely to be realized.

The foreign carrying trade of the Philippine Islands for 1908 embraces maritime movements at all entry ports,

representing the entrance of 1,033 and clearance of 1,010 steam and sailing vessels. Of these 849 entered with cargo and 358 cleared in ballast, while 184 entered in ballast, and 652 cleared with cargo. The aggregate tonnage of the vessels represented by these entrances and clearances, during the year, was 2,976,350 registered tons, an increase of 361,516 tons over 1907.

While merchandise imported from Great Britain constituted but 19 per cent of the total value of imports from all sources during 1908, the value representing cargoes brought to the Islands in British vessels (\$16,252,967) constituted 52 per cent of the total import value for the year. Cargoes invoiced, in the aggregate, at \$5,425,498, or 17 per cent of the total import value, arrived in vessels flying the Spanish flag; vessels of German registry brought merchandise to the value of \$3,796,631 or 12 per cent; 3 per cent of the import values consisted of cargoes brought in Japanese vessels; while the cargoes of American vessels contributed but 2 per cent.

A notable excess in the value of products shipped from the Islands in British vessels (\$24,667,814 or 76 per cent of the total export value), over the value of products consigned to Great Britain (\$8,870,923) indicates the extent to which export trade with other countries than Great Britain was carried on by means of British shipping. Consignments aggregating in value \$2,435,055, or 7 per cent of the total were laden in vessels of Spanish registry; exports declared in the aggregate at \$1,868,392, or 6 per cent, were carried in German vessels; and products valued at \$1,576,120 or 5 per cent, were exported in Japanese bottoms; while shipments in American vessels were valued at \$931,889, in French \$906,643, Norwegian \$387,314, and in domestic vessels \$55,408.

The combined value of the import and export trade of the Islands, as carried on with all countries during the fiscal year 1908, was \$63,748,561. Of this, \$15,411,786, or 24 per cent, represented merchandise received from, and exported to, the United States in commercial vessels, although cargoes brought to and taken away from the Philippines in such vessels of American registry were valued at but \$1,609,070, or only 2.5 per cent of the trade value. There was exchanged between Great Britain and the Islands merchandise aggregating in value \$14,980,509, or 23 per cent, while British vessels carried cargoes to and from the Philippine Islands invoiced at \$40,920,781, or fully 64 per cent of the total trade value of the year's commercial transactions.

These official figures demonstrate the extent to which the United States has benefited, since having acquired the Philippine Islands by the treaty of Paris, December 10, 1908, and for which was paid \$20,000,000; also American participation in the great profit from trade and commerce which were sure to develop on the Pacific Ocean as a result of the purchase.

The Pacific Coast states should now demand some consideration in the building of a canal on the Isthmus, without entering into a discussion of the merits of the Nicaragua or Panama routes or the practicability of a sea level as against a lock canal. The Isthmian canal is a national enterprise, has been in course of construction since May 4, 1904, and many millions of American dollars have been spent on the work. As an American enterprise the Canal is being built for the benefit of the American people, which applies both to the work of construction and utility of the canal when completed. Trade with the Orient is an important factor in the building of any kind of a canal; none the less important was the superior advantages of quick communication by water between the Atlantic and Pacific states; of vital importance to the Pacific Coast states, was a competitor of the railroads; of vital importance to the Atlantic states, reasonable rates of transportation for Pacific Coast products to the Atlantic Coast; all of which we are assured will be

available in less than six years; but in the meantime supplies are required, materials are being used, equipment is necessary, much of which is brought by railroad to Atlantic shipping points and thence by water to the Canal Zone, while the redwoods of California, which have been eagerly sought by every country in the civilized world as railroad ties, have been neglected on the Isthmus in favor of the less desirable cypress ties of the Eastern states and the same transported to tidewater by railroad. Yet California, Washington and Oregon collectively could fell sufficient timber on tidewater, construct a log raft, and furnish every foot of lumber required to complete the canal, in one shipment, and land same in the harbor at La Boca with one handling.

Collectively these states at the same comparative cost of shipment could supply beef, wool, pork and dairy products, canned fruits, vegetables and fish, sugar, tanning, flour and grist mill products, fuel, lubricating and illuminating oil, forage, horses, mules, hogs, sheep and goats, hemp, tobacco and rice, wine, liquors and cordials, cement and manufactured articles for which Pacific Coast states have an enviable reputation; these also include: mineral waters and brewery products, motive power machinery, such as gas-line engines, water wheels and dynamos, refrigerating and pumping plants, shipbuilding and pleasure craft, cordage, paper and pulp, boots, shoes, clothing, and explosives; in fact except for the iron products, every article required for the construction of the canal. And yet Pacific Coast states sold less than \$200,000 worth of goods to the canal enterprise in 1908.

Permit us to analyze one Pacific Coast industry which has received due recognition on the Isthmus, whereby the Union Oil Company of California on January 10, 1906 was granted a revocable license to operate and maintain a pipe line for the transmission and delivery of oil in the Canal Zone. The license provided that the company should pay into the treasury of the Canal Zone the sum of \$500 per month for the support of the public schools, and should furnish to the Isthmian Canal Commission and the Panama Railroad Company such crude oil as might be desired at the rate of 90 cents a barrel. The license has been recently amended and does away with the monthly payment of \$500, places the price of oil at \$1.10 per barrel for a period of six years from April 1, 1909, guarantees the use of between 30,000 and 60,000 barrels of oil per month, and provides that no taxes be collected on account of the government of the Canal Zone during the term of the agreement, which expires April 1, 1915.

The history of oil in the United States is too well known to enter here as an element of discussion of the subject at hand. With 400 miles of pipe line extending from Bakersfield to Richmond in California, and traversing the richest oil fields in the world, places the Union Oil Company in a position of independence, and complete masters of the transportation of their own product both in California and on the Isthmus; entirely free from railroad dictation the oil company is in a position to dispose of their product at a reasonable cost to the Commission, as compared with prices for the article in the states. Imagine the difference in the cost of oil in the Canal Zone if the oil wells of California ceased to produce, and it became necessary to transport oil by railroad in place of a pipe line.

M. S. S. LURLINE.

The Matson Navigation Company's steamer represents a successful type of steamer for the Pacific—Honolulu to San Francisco—trade. The fact that there is a full cargo both ways allows of the engine being in the stern. The vessel was built by the Newport News Shipbuilding and Drydock Company to Lloyds three-deck rule, class A. I. The dimensions are: Length over all, 436 feet; beam

moulded, 53 feet; depth moulded to upper deck, 33 feet 6 inches; load draft, 26 feet; displacement to 26 feet, 10,000 tons.

The vessel has two complete steel decks and partial steel orlop deck from the stern to the after end of one hold. The space deck is laid with yellow pine in the forecabin, poop and midship house.

The hull of the ship is arranged with four holds, with the machinery aft.

The crew's quarter, carpenter shop and boatswain's lockers are forward under the forecabin deck. The dining saloon, pantry, ladies' and men's bathrooms and fourteen staterooms are located in the midship house on the spar deck, and above these on the bridge deck are the smoking room, social hall and six staterooms. The dining saloon and all staterooms are finished in white and gold, and the social hall and smoking room are finished in mahogany, upholstered in dark brown.

On the upper bridge deck are pilot house, chart room, captain's and officers' quarters.

The engineers' quarters, with those of the oilers, water tenders, firemen, cooks and waiters, are aft under the poop deck, together with the galley and officers' and crew's mess rooms.

Aloft the Lurline has three masts, the fore and main fitted with derrick cargo booms. The mizzen is fitted with a five-ton boom for handling engine room weights. At the masthead is strung the spider or harp for the wireless apparatus.

The double bottom is five feet high in the center, level across, with a watertight center keel. The margin turns down at the bilge to allow drainage.

The propelling machinery consists of a triple expansion engine 51x50x84 inches, 54-inch stroke, with crank shaft and pins 16½ inches diameter and forged steel crank webs. Steam is supplied by four single-ended Scotch boilers 16 feet 4 inches diameter and 11 feet 6 inches long, with a working pressure of 180 pounds. Each boiler has four Morrison furnaces 36 inches diameter, with separate combination chambers. The grate area is 79 square feet and the heating surface is 2,726 square feet in each boiler, making a total of 10,904 square feet for the main boilers, giving about 3,600 to 4,000 horsepower burning oil fuel. The donkey boiler is a single-ended Scotch boiler 11 feet 6 inches diameter, 10 feet 6 inches long, with a working pressure of 180 pounds. The propeller is 18 feet diameter, 20-foot pitch, with a projected area of ninety-eight square feet and a horizontal area of 115 square feet.

The average day's run coming around the Horn was 280 knots, with about 5,800 tons cargo and 2,300 tons of fuel besides the bunkers. A deep sea Chase towing machine is fitted aft.

OIL BURNING TESTS.

The coast defense monitor Cheyenne, at present at anchor in San Francisco Bay, has just completed a series of tests for the purpose of trying the respective merits of coal and oil as fuel. While no official report on the work has been given out, the synopsis of opinion among the officers who have watched the tests closely is that eventually all warships will be equipped with oil-burning apparatus.

There are numerous reasons for installing oil as fuel. Steam pressure can be maintained much more evenly than with coal, a higher speed can be obtained and smoke, cinders and dirt are eliminated. The steaming radius of the Cheyenne with coal was 1,500 miles, but equipped with oil-burning apparatus, as she is at the present time, her steaming radius is 2,300 miles.

Staples & Pfeiffer's oil-burning plant is being used in the tests.

PLEASURE CRAFT

OPENING DAY

Corinthian Yacht Club, Saturday, May 1, 1909, Tiburon, California.

"Hail, gentle spring," chirps the vernal poet. But even if with the divine afflatus he combines the gift of McAdie, be it known that the Corinthian Yacht Club will positively open the season of 1909 on Saturday, May 1st, and no postponement on account of the weather. And it is confidently expected that the opening will prove wide enough for the passage of all the scheduled events without fouling the sides.

Those who expect innovations upon the traditional program will be cheerfully allowed to expect again. Macbeth rants pretty much the same today as he did three generations ago. And so, though slightly altered in personnel, practically the same old reception committee will try to look gladder than ever, and to all intents and purposes will shine in the same gold braid, brass buttons and weather-beaten complexions that have dazzled the land-lubbers, male and female, through the long procession of years. The parts have been assigned as follows:

Commodore W. F. Stone, chairman. (without rocker); Captains W. J. Hogg, J. H. Keefe, Theo. F. Tracy, P. J. Gallagher, C. F. Ward, L. J. McMahon and C. F. Morel.

In turn will be encountered the familiar floor committee, with the following cast: General manager, Captain Joseph M. O'Brien; first assistant general manager, Captain William Coates; second assistant general manager, Captain George Kane; third assistant general manager, Captain A. Cheseborough; fourth assistant general manager, Captain J. McFarland; fifth assistant general manager, Captain Gus Dorn; seventh assistant general manager, Captain J. Dowling; eighth assistant general manager, Captain F. Farnkoph; ninth assistant general manager, Captain H. Fritch; tenth assistant general manager, Captain V. Dahl; eleventh assistant general manager, Captain H. D. Hawks; twelfth assistant general manager, Captain G. J. Kinsey; thirteenth assistant general manager, Captain John C. Brickell; fourteenth assistant general manager, Captain F. Raymond; fifteenth assistant general manager, Captain J. Short.

These descendants of vikings will do their best to promote the annual abrasion of sole-leather. At their behest the usual ratio of "ettis" and "inis" will dispense through the immortal instruments the garlicky melodies endeared by long acquaintance; and at intervals, when they smite the bar'l, the temperature will be relieved with aqueous lemonade of the time-honored specific gravity.

Even the lubricants used on the elevator will bear the immemorial trade-marks which have caused that feature to be pronounced "the slickest part of the show."

The 5:30 ferry will provide means of escape for all but club members, for whom an entertainment shown by long experience to set well on beans and chowder, has been prepared by the jinks committee: Captains John

V. O'Brien, James R. Miller, Charles F. Morel, Thomas Jennings and L. J. McMahon.

General orders, Sunday, May 2, 1909: 8 a. m., dress ship; 10 a. m., report on board flagship Presto for sailing orders for cruise in squadron; 11 a. m., make sail at signal from flagship. W. F. Stone, commodore. L. J. McMahon, secretary.

With the official opening of the Corinthian Yacht Club today the long looked forward to yachting season of 1909 begins, and if the gods are good and the prophecies of the wise ones come true it will go down on the great log

as one of the most successful on the Pacific Coast. The Corinthian opening will be a memorable one in that it is the last to be held in the historic old clubhouse at Tiburon, and it is expected that there will be an unusually large attendance. The pulleys of the elevator have been specially greased and although the door has not been enlarged it has a practically unlimited capacity and will work overtime this afternoon and evening.



MERCEDES—J. NORBY.

Captain Jack O'Brien has prepared an especially attractive program for the jinks in the evening and has secured much new talent for the performance, and the fortunate ones who have looked in at the rehearsals say that it is to be a corker.

Captain John Keefe has on hand a large assortment of beans, clams and other dainties to delight the palates of the jolly Corinthian tars, who, it is said, have for some time been fasting in preparation for the big event.

It has been reported that Frank Bartlett has bought a half interest in the schooner Magic.

Captain Harry Goodall's steam yacht Lucera is now in commission for the summer.

Commodore Frank Stone's sloop Presto, flagship of the Corinthian Club, has had new decks put in and is now at her moorings off the clubhouse.

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Mr. W. L. Oliver's motor yacht Bonnie Doon has been entered in the San Francisco Yacht Club fleet. She is at present moored in the Oakland estuary, but will probably be kept in Sausalito. The Bonnie Doon was out



WANDERER—P. M. B. C.

last Sunday and cruised about the bay. The local yachtsmen are much interested in her, as she is by far the largest and best equipped vessel of her type on the Coast.

Clarence Doby of the Corinthian Club intends to bring his ark La Fiesta back to Belvedere Cove next week. She has been moored near the Park Street bridge at Alameda for some time.

A feature of the Alaska-Pacific Exposition, which opens June 1st in Seattle, will be the yachting and motor boat events which will take place from time to time, throughout the exposition. There will be many interesting motor boat races, open to members of all organized clubs. These races will be held under the auspices of the Motor Boat Club of Seattle, together with the management of the exposition. There will in all probability be several entries in these races from the clubs about San Francisco Bay and its tributaries.

The Corinthian Yacht Club has accepted the challenge of the South Coast Yacht Club for the McDonnough perpetual cup. The challenger is the sloop Maphe, now in course of construction in the shop of Joseph Fellows at Terminal Island, and owned by Captain

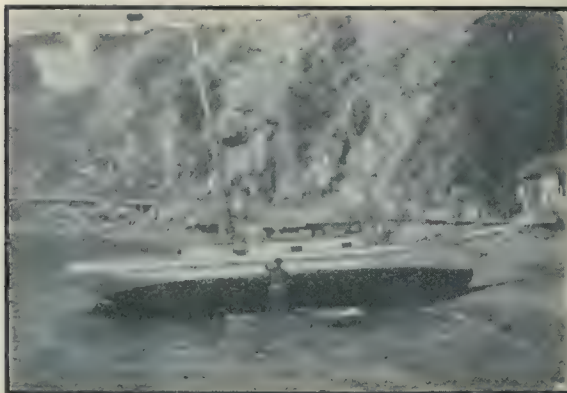
Cugh of San Diego. The Maphe measures 40.35 racing length, and it is expected that she will be very speedy. The cup will be defended by the sloop Corinthian, designed by Burgess & Packard, built by Frank Stone and owned by the club. The Corinthian, although she measures somewhat more than the Maphe, can be brought down to within 10 per cent of the latter's racing length by ballasting, and it is expected that the race will be

a very close and exciting one. The race will be held somewhere around the middle of this month, the exact date to be announced later.



NIXIE—COM. BARRY.

Fred Greenwood's motor boat La Boheme is back at Belvedere, after wintering in Cordelia Slough. She is to be entirely overhauled, and Mr. Greenwood intends



SCHOONER MAGIC.

to take her to the Alaska-Pacific Exposition and cruise during the summer in northern waters. La Boheme is enrolled in the fleet of the San Francisco Yacht Club.

Captain Kendall's Alert, California Yacht Club, is to have a new suit of sails and be lengthened out.

The clubhouse of the California Yacht Club has been entirely remodeled during the winter.

S. S. Niagara on Hunters Point drydock for cleaning, painting and general repairs.

S. S. Lansing on Hunters Point drydock for repairs to hull.

The crack sloop Starlight, California Yacht Club, is being put into trim for the coming season. She is to have a new club topsail and watersail.

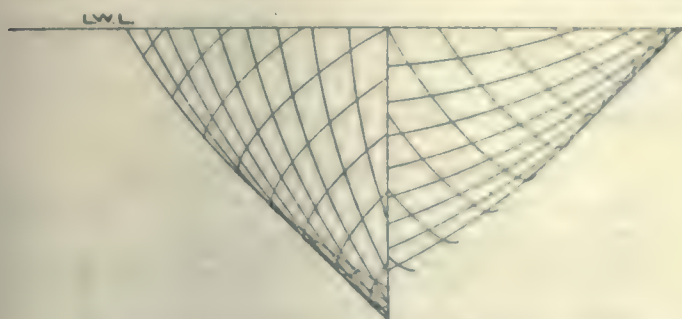
Ex-Commodore D. J. Keane, of the California Yacht Club, has put up a handsome cup to be contested for by the yachts of the club in a handicap race to be held September 17th.

Cecil Brown, first officer of the P. C. S. S. President, has been appointed assistant inspector of hulls, to succeed Thomas Deering, who will be sent to St. Michael for the season.

The California Yacht Club will hold its opening jinks in its clubhouse at Sheep Island Sunday afternoon, May 2nd. A large attendance is expected, and many of the yachtsmen from the other clubs will be present.



KONOCTI.



Under Body, Showing Parallel Wave Lines.

**KONOCTI.**

The racing motor boat Konocti, owned by E. J. Holt and P. Gray, has recently been overhauled and put in commission by the Gorham Engineering Company. The Konocti is in all probability the fastest motor boat on the Pacific Coast, being claimed by her owners to make a speed of twenty-five nautical miles an hour. She was built by John Twigg & Sons from their patented design in 1908 and has made several notable performances since her launching. Her owners expect to take her to Seattle

in June and enter her in the motor boat races at the Alaska-Pacific Exposition. Before going to Seattle she will be raced in Sacramento against General II, owned by E. F. Mitchell and Bernard Klune, of the Sacramento Boat Club, for the California state championship. The boat winning the best two out of three boat races will carry off the championship and a valuable cup.

The Konocti is 35 feet over all, 6 feet beam and is equipped with a 60-horsepower gasoline motor weighing 3,500 pounds and turning up 800 revolutions per minute.

FOR SALE.

The 50-foot waterline schooner yacht Marian was built by day's work for a capitalist of San Francisco, and should be seen to be appreciated. It is equipped and built in detail for ocean cruises or short pleasure trips. Nothing remains to start the Marian for a long or short voyage, except the provisions required. Yachting circles about the

bay are anxiously watching the possibility of an outside buyer, as the Marian is considered to be the most promising addition to the yachting fleet in this harbor for many years. Inspection is invited.

Inspection or communication, Stone and Van Bergen, foot of Baker street, San Francisco, Cal.

SHIPBUILDING NOTES.

Union Iron Works.

Standard Oil ship Acme on floating dock for repairs to hull.

Steamer Fifield on floating dock for cleaning and painting.

Reventie cutter Hartley being overhauled on floating dock.

Tug Restless on floating dock for hull work.

Gorham Engineering Works.

Five-horsepower Gorham engine being installed in twenty-foot compromise stern launch owned by Edwin Kelttnee of California City.

The new steamer Triton, built by the American Steamship Company for travel on Lake Washington during the Alaska-Yukon-Pacific Exposition, was launched at Houghton April 24th.

The schooner Meta Wilson, which was receiving a general overhauling at Lundstrom's shipyards, Aberdeen, came off the ways April 25th and will load for Honolulu.

The schooner Meteor took the place of the Nelson at Lundstrom's and after receiving a cleaning and painting will load for San Pedro.

The Alaska S. S. Northwestern went on the drydock at Quartermaster's Harbor April 26th and will remain on several days to be scraped and painted.

Tacoma.

Work on the car ferries for the Chicago, Milwaukee and Puget Sound Railroad is progressing rapidly at Hall Brothers' shipyards at Winslow and they will be finished on contract time.

The steamer Corwin is receiving a general overhauling at Hall Brothers. The Corwin will have a wireless installed before leaving the Nome service.

The schooners William H. Smith and W. H. Talbot are at the yards having new masts installed.

The United States survey steamer Gedney is receiving general overhauling of machinery and hull.

The barkentine Makawell and the schooner William F. Garms are at the yards awaiting repairs.

CHANGES IN SHIPS' OFFICERS.

Maurice Pillsbury has succeeded E. Dennis as second officer of the S. S. City of Sydney.

Otta Lang has succeeded John F. Jorden as third officer of the City of Sydney.

William Ebert, formerly fourth officer of the S. S. Governor, succeeded Charles Burke as third officer.

Edward Preston joined the S. S. Governor as fourth officer.

The following officers have been assigned to the new Government dredge Clatsop, which is operating about Astoria: Charles Sanders, captain; Hugh McCulloch, mate; chief engineer, Hartley Morgan; first assistant, George Copeman; second assistant, James Duffy.

Chief Engineer Muller, of the Portland and Coos Bay steamer Alliance, has resigned. His successor has not been named as yet.

Purser E. L. Browne, also of the Alliance, has resigned. His place was taken by Harry W. Skinner.

James Barneson, formerly of the S. S. Rose City, went out as second officer on the P. M. S. S. Asia, taking the place of G. Chatham.

C. P. Watson will succeed J. Lewin as third officer of the S. S. Asia.

Albert Johnson, third assistant engineer of the S. S. Santa Rosa, has laid off temporarily, and his place will be taken by R. Trundell.

Martin Tarpey, second officer of the Santa Rosa, will take a vacation. His place will be taken by Ernest Barry.

Captain Gielow, of the S. S. City of Topeka, who has been on his vacation, is back on the City of Topeka, relieving Captain Hall.

Purser Carlton, of the S. S. City of Topeka, has been relieved by G. Stackpole.

TIDE TABLE TO WEEK ENDING SATURDAY, MAY 7.
Golden Gate Entrance to San Francisco Bay.

A P R I L									
Moon	Day of		Time and Height of High and Low Water						
	W	Mo.	T.	H.	T.	H.	T.	H.	
Full	Mon.	5	5:20	1.4	11:12	4.9	17:28	1.3	23:48
	Tues.	6	5:55	1.1	12:15	4.9	17:56	1.6	18:30
	Wed.	7	0:02	5.2	6:26	0.8	13:00	4.7	18:04
	Thur.	8	0:26	5.1	7:00	0.6	13:53	4.4	19:04
	Fri.	9	0:50	5.2	7:45	0.5	14:54	4.2	19:42
S 3rd. quar.	Sat.	10	1:13	5.2	8:35	0.3	16:10	4.0	20:22
	Sun.	11	1:45	5.2	9:30	0.3	17:32	4.2	21:28
	Mon.	12	2:32	5.1	10:32	0.2	18:42	4.3	22:35
	Tues.	13	3:50	5.0	11:35	0.2	19:34	4.5	
	Wed.	14	0:02	3.5	5:30	4.9	12:38	0.1	20:15
P E New	Thur.	15	1:15	3.1	7:00	5.1	13:36	0.1	20:48
	Fri.	16	2:14	2.4	8:08	5.3	14:30	0.2	21:24
	Sat.	17	3:05	1.7	9:12	5.4	15:25	0.4	21:56
	Sun.	18	3:55	1.0	10:08	5.5	16:10	0.7	22:30
	Mon.	19	4:42	0.4	11:05	5.6	16:52	1.0	23:05
N	Tues.	20	5:23	0.0	12:04	5.4	17:36	1.5	23:40
	Wed.	21	6:10	-0.3	13:04	5.3	18:18	2.0	
	Thur.	22	0:20	6.0	7:02	-0.5	14:07	4.9	19:02
	Fri.	23	1:00	5.9	7:55	-0.5	15:20	4.5	19:53
	Sat.	24	1:44	5.6	8:53	-0.3	16:35	4.5	20:50
1st. quar.	Sun.	25	2:30	5.4	9:54	-0.1	17:46	4.6	22:02
	Mon.	26	3:33	4.9	10:55	0.1	18:50	4.6	23:35
	Tues.	27	4:52	4.7	11:55	0.3	19:40	4.9	
	Wed.	28	1:00	3.4	6:12	4.5	12:48	0.5	20:18
	Thur.	29	2:00	3.0	7:24	4.5	13:35	0.7	20:50
A	Fri.	30	2:42	2.4	8:25	4.5	14:24	1.0	21:17
			M A Y						
E	Sat.	1	3:16	2.0	9:18	4.6	15:05	1.2	21:45
	Sun.	2	3:48	1.5	10:04	4.6	15:40	1.5	22:08
	Mon.	3	4:20	1.1	10:45	4.8	16:10	1.7	22:24
	Tues.	4	4:46	0.7	11:28	4.7	16:45	2.0	22:47
	Wed.	5	5:21	0.3	12:15	4.7	17:20	2.3	23:15
Full	Thur.	6	6:00	0.0	13:06	4.6	17:55	2.7	23:38
	Fri.	7	6:40	-0.2	14:04	4.5	18:35	3.2	

Time used, Pacific Standard, 120th Meridian W.
0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.

N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	19	Apr. 21	Buoy No. 1 on Brown's Spit and beacon No. 8 gone.
Willapa Bay	27	Apr. 1	Depth at M L W in channel at Raymond 15 feet.
Columbia River	24	Feb. 6	
Nehalem River			
Tillamook Bay	13	Mar. 2	Channel shifting about $\frac{1}{4}$ mile to southward is now $\frac{1}{8}$ mile south of the whistling buoy.
Yaquina Bay	13	Mar. 12	Channel not changed.
Siuslaw River	8 $\frac{1}{2}$	Apr. 15	Channel gone to north end of jetty and beacon on high bank marks channel now.
Umpqua River	9	Apr. 1	Channel to northward of old established ranges.
Coos Bay	17	Apr. 6	Soundings today show a ridge abreast of black buoy off end of jetty which shoaled last 2 days.
Coquille River	9	Mar. 26	2 buoys gone; channel in middle between jetties.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	8	Apr. 2	At present channel is southwest.
Humboldt Bay	18	Apr. 1	North channel 13 ft; very narrow and crooked, difficult to navigate for large vessels; about 13 feet in south channel.
San Pedro Bay	20	Apr. 15	No change in channel.
San Diego Bay	26	Apr. 3	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS.

The following information affects the aids to navigation of the Thirteenth lighthouse district:

Oregon—Yaquina Bay Entrance: Outside bar whistling buoy, P. S. "Y," replaced March 22, having been reported missing March 19.

L. H. B. list of buoys, etc., Pacific Coast, pp. 46 and 53.

Oregon and Washington—Columbia River Entrance: The following buoys, found missing, were replaced as follows:

Clatsop spit buoy, 6, first-class nun; April 6.

Peacock spit buoy, 9, first-class can, April 1.

L. H. B. list of buoys, etc., Pacific Coast, pp. 56 and 57.

Washington—Grays Harbor Entrance: Point Brown spit buoy, 1, first-class can, reported missing April 7, will be replaced as soon as practicable.

Alaska—Revillagigedo Channel: Hog rocks light relighted February 9, having been heretofore reported extinguished.

By order of the lighthouse board.

CHARLES F. POND,

Captain, U. S. N., Inspector.

Office of Inspector Thirteenth Lighthouse District, Portland, Or., April 9, 1909.

China Sea.

Taiwan (Formosa)—North Coast: Puki Kaku (Foki Kaku); light temporarily extinguished; provisional light: The Japanese Government has given notice that on January 10, 1909, the fixed white light shown from the lighthouse on Puki Kaku, north coast of Taiwan, would be temporarily discontinued on account of necessary repairs to the tower. Also that during the progress of the work a provisional fixed red light, visible six miles, would be exhibited from the flagstaff standing to the northward of the tower. Approx. position: Latitude 25 deg. 18 min. N., longitude 121 deg. 32 min. E.

Chile.

Ancud Gulf—Chauques Islands; Buta Chauques Island; Shoal Northeastward: The Chilean Government has given notice of the existence of a shoal, consisting of large stones, which uncover at low water spring tides, northeastward of Buta Chauques Island, Ancud gulf, Chile, on the following bearings: Tugano point, S. 18 deg. W.; Guallaimo bluff, N. 72 deg. W.

Ancud Gulf—Chauques Islands; Mechuque Island; Shoal to Northward: The commander of the Chilean tender Toro reports that a shoal consisting of isolated boulders, exists northward of Point Escaleras, north point of Mechuque Island, Ancud gulf, Chile. The shoal is about 600 yards in diameter, with a least depth of five feet over it, and is not indicated by kelp.

Chiloe Island, Cauchue Island—Lobos Head; New Light Established: The Chilean Government has given notice that on March 15, 1909, and without further notice, an intermittent white light every sixty seconds, thus, light eleven seconds, eclipsed forty-nine seconds, elevated 238 feet above sea level, and visible twelve miles, would be established on Lobos head, northern end of Cauchue Island, Chile. The lantern and its support are located forty feet north 72 deg. 45 min. W. from the old lighthouse. They are painted white and their combined height is twelve feet. A keeper's dwelling, painted white, is also located about eighty feet westward of the lighthouse.

Valdivia Bay—Port Corral; Tres Hermanas Bank; Light buoy Established: The Chilean Government has given notice that a light buoy exhibiting a flashing white light every three seconds, thus, flash 3-10 second, eclipsed 2 7-10 seconds, elevated thirteen feet above the sea, and visible ten miles, has been experimentally established on the northwestern edge of Tres Hermanas bank, port Corral, Chile. The buoy is moored in twenty-three feet of water, 650 yards S. 60 deg. E. from Atrial rock, and about 133 yards S. 60 deg. E. from the black buoy at present marking the shoal, which will be maintained pending the permanent establishment of the light buoy.

Patagonian Channels; Messier Channel, English Narrows and Indian Reach; Hydrographic Information—The following information concerning the Patagonian channels, Chile, has been received from the navigating officer of the U. S. S. Solace: Cotopaxi rock buoy is cylindrical, painted black, not red and white, as stated in the Sailing Directions. Williams Island in (approximately) latitude 48 deg. 43 min. S., is apparently located

further to the eastward than charted. Memphis shoal buoy is conical, painted red, not cylindrical and black, as stated in the Sailing Directions. Abtao shoal buoy is painted red, not red and white, as indicated on H. O. chart No. 570, and stated in the Sailing Directions.

Magellan Strait; Delgada Point Lighthouse; Color—Lieut. Commander Raymond Stone, U. S. navy, navigating officer of the U. S. S. Solace, reports, under date of January 31, 1909, that Delgada point lighthouse, Magellan strait, is painted all white, and not red over a gray house, as stated in the Light List and Sailing Directions. Approximate position: Latitude 52 deg. 28 min. S., longitude 69 deg. 33 min. W.

Patagonian Channels; Smyth Channel; Hydrographic Information—The following hydrographic information concerning Smyth channel, Patagonian channels, has been received from the U. S. S. Solace: The anchorage indicated by cross bearings on H. O. chart No. 1619, southward of the Otter Islands, in Smyth channel, Patagonian channels, is not a good one. The Solace anchored on the spot indicated by the anchor on the chart, and on weighing the starboard anchor came up with the ball broken off one end of the stock and the port anchor with no stock at all. Small vessels should anchor in Otter bay, and large vessels somewhat off the bearings laid down on the chart, in from twelve to sixteen fathoms, easing down their anchors. Approximate position: Latitude 52 deg. 23 min. 20 sec. S., longitude 73 deg. 40 min. W. There is no top-mark on Bradbury rock beacon. The beacon itself is conspicuous. On Alert rock, to the northward of Adelaide Islands, there is a small beacon of white slats. This beacon is lightly constructed and insecure. Its permanency should not be relied upon. The beacon on Adelaide Island is missing, being broken off close down to the pedestal, which is discernible when close aboard. (See Notice to Mariners No. 10 (450), of 1909.)

Philippine Islands.

Luzon—West Coast; Manila; Time Signal Established: A time ball has been established on the semaphore tower, Engineer island, Manila harbor. The ball is hoisted five minutes before the signal and dropped at noon, 120th meridian (east longitude) standard time, corresponding to 16 hours, Greenwich mean time. Should the ball fail to drop on time, it will be lowered slowly about five minutes past the hour. Approx. position: Latitude 14 deg. 35 min. 43 sec. N., longitude 120 deg. 57 min. 21 sec. E.

Japan.

Gulf of Tokyo; Kannon Zaki Lighthouse; Wreck to Southward—The Japanese Government has given notice that the wreck of the steamer Iburi Maru lies sunk 2,550 yards S. 13 deg. 30 min. E. from Kannon Zaki lighthouse, gulf of Tokyo, Japan. The wreck is entirely submerged with a depth of five feet of water over the masthead at low water, and is marked by two red flags, one shown from a staff attached to the foremast, and the other from a staff attached to the mizzenmast. Approximate position: Latitude 35 deg. 14 min. 6 sec. N., longitude 139 deg. 45 min. 5 sec. E.

Kiushu; West Coast; Nagasaki Harbor; Mooring Buoy Established—The Japanese Government has given notice that a mooring buoy, numbered 8, has been established in Nagasaki harbor, Japan, 1,720 yards N. 11 deg. 30 min. W. from the summit of Nabekamuri yama. Approximate position: Latitude 32 deg. 44 min. 34 sec. N., longitude 129 deg. 51 min. 42 sec. E.

British Columbia.

Vancouver Island; Vancouver Harbor; Laurel Point Light Moved—Referring to Notice to Mariners No. 49 (2211) of 1906, the Canadian Government has given further notice that the chimney on Laurel point, Victoria harbor, from which the fixed red electric harbor light was suspended, has been taken down and the light moved eighty feet to the southwestward to the pole standing on the bare rock at high-water mark, on the extremity of Laurel point, from which it was formerly shown.

A modern principle of education is if you are in doubt upon a subject the next best thing to know is where to look for definite information, the proper application of this principle in business transactions is an indication of progress, and must bring about the same degree of success in the latter case as in the former, and has made the name of Works, Emerson & Howe, San Francisco, so well identified with the Ship Chandlery business on the Pacific Coast.

The light is now shown from two 16-candlepower incandescent electric lamps, suspended in a red globe, twenty-five feet above high water, and should be visible one mile from all points of approach by water. Approximate position on H. O. charts, latitude 48 deg. 25 min. 22 sec. N., longitude 123 deg. 22 min. 29 sec. W.

Strait of Georgia; Mary Island; Shark Spit Beacon Gone; Buoy Established—The beacon on Shark spit, Mary Island, having disappeared, the shoal has been marked by a conical steel buoy, painted red, moored close off the end of the spit in $3\frac{1}{2}$ fathoms of water. Approximate position: Latitude 50 deg. 5 min. 31 sec. N., longitude 125 deg. 3 min. 15 sec. W. The width of the navigable channel between the buoy and Channel rock is approximately 240 feet.

Capt. Baughman, of the steamship Humboldt, reports as follows: April 19, 1909, Indian Rock buoy, Lyan Canal, gone. April 19, 1909, Battery Point light, burning. April 20, 1909, Potter Rock buoy, Tongas Narrows, replaced. April 20, 1909, No. 7, buoy, Wrangel Strait, replaced. April 20, 1909, Holland island gas beacon, burning. April 21, 1909, Watson Rock gas beacon, burning. April 21, 1909, Morning Rock gas beacon, burning.

Office of U. S. Lighthouse Inspector,
12th District,

San Francisco, Cal., April 23, 1909.

NOTICE TO MARINERS, BLUNTS REEF, CAL. (List of Lights and Fog-Signals, Pacific Coast, 1908, page 24, No. 60, and List of Lights, Buoys, and Daymarks, Pacific Coast, 1908, page 36.)

Notice is hereby given that Blunts Reef Light-vessel No. 83 was temporarily withdrawn from her station for repairs on April 21, 1909, and the station was marked by Relief Light-vessel No. 76. The relief light-vessel shows lights and sounds signals having the same characteristics as those of Light-vessel No. 83, except that each of the two lights are shown from three lens lanterns encircling the mastheads at a height of 46 feet above the water and visible twelve miles.

By order of the Lighthouse Board.

R. F. LOPEZ,

Commander, U. S. N.

Inspector, 12th Lighthouse District.

Captain A. W. Nelson of the steamer City of Para reports to the Branch Hydrographic Office in this city that on March 29, 1909, off Bona Island, in the Gulf of Panama (latitude N. 8 deg. 34 min., longitude W 79 deg. 35 min.), he sighted numerous logs and whole trees with roots and branches attached, from 20 to 100 feet long.

J. C. BURNETT,

Lieut., U. S. N., in charge.

The British Colonial Secretary for the Fiji Islands, at Suva, has cabled the Branch Hydrographic Office in this city that from May 1st to June 1st, approximately, the light on Nailangilala island, in Nanuku passage, Fiji Islands, will be temporarily replaced by a white light visible all around the horizon for a distance of 8 miles. Further notice will follow concerning the characteristics of the new light to be installed.

J. C. BURNETT,

Lieut., U. S. N., in charge.

RECENT CHARTERS.

Am. ship Henry Failing, load lumber on the Sound for \$12 per thousand. Ger. ship Schwarzenkek, load lumber at Portland for South America at 53s 6d. Fr. bark Bidart for wheat loading for United Kingdom at 27s 6d. Barkentine James Tuft for lumber from Columbia river to Melbourne or Adelaide at 35s. Am. ship John Ena load sugar Hilo to Atlantic seaboard. Am. schooner Mabel Gale, lumber Astoria to San Francisco. Fr. bark Vincennes, grain Portland to United Kingdom at 28s. Fr. bark Byard, grain Portland to United Kingdom at 27s. 6d.

The following lumber charters were announced yesterday: French ship Berangere, at Portland, thence to one port in South Africa, Cape Town, to Delagoa bay, at 42s 6d, chartered prior to arrival; French bark Jacobson, at Portland, thence to a direct port in the United Kingdom at 41s 3d, prior to arrival; British ship Leyland Brothers, at Portland, thence to the United Kingdom; British ship Puritan, on Puget sound, from British Columbia to Melbourne at 35s. Adderley, lumber British Columbia to Melbourne, owners'.

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account; Alpena, 35s, lumber, Puget Sound to Melbourne; Emelie, 52s 6d, lumber, Puget Sound or British Columbia to direct port United Kingdom; steamship Bessie Dollar, Puget Sound to Guaymas, lumber, owner's account; steamship Puritan, British Columbia to Nome, Alaska, time charter (3s 6d on dead weight, two trips); Irene, lumber, Hoquiam to Guaymas, private terms; Mezly, 25s, San Francisco to Cork for orders, United Kingdom, etc., (full cargo of barley); Marechal Castries, Portland to Cork for orders, United Kingdom, etc., union rates (September, October); Gael, Portland to Cork for orders, United Kingdom, etc., union rates, new season; Cornil Bart, Portland to Cork for orders, United Kingdom, etc., union rates, new season; Hoche, Portland to Cork for orders, United Kingdom, etc., union rates, new season; Neuilly, Portland to Cork for orders, United Kingdom, etc., union rates, new season; L. Hermitte, Portland to Cork for orders, United Kingdom, etc., union rates, new season; Andre Theodore, Portland to Cork for orders, United Kingdom, etc., union rates, new season; Babin Chevaye, Portland to Cork for orders, United Kingdom, etc., union rates, new season; La Roche Jaquelein, Portland to Cork for orders, United Kingdom, etc., union rates, new season; Michelet, Portland to Cork for orders, United Kingdom, etc., union rates, new season.

The Whitelaw Wrecking Company has made good progress in stripping the R. D. Inman of a number of pieces of important apparatus, including three cylinders, crank shafts, thrust shaft connecting rods, air compressor and receiver, circulating pumps, electric lighting plant and main bed plates. The position of the wreck remains unchanged.

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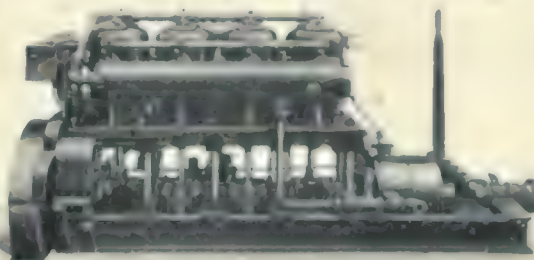
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PACIFIC MERCHANT MARINE

SATURDAY, MAY 8, 1909

VOL. II


NO. 8

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Volume II

SATURDAY, MAY 8, 1909

Number 8

TARIFF DUTIES.

The Chief Articles on Which They Are Collected and the Share Which They Form in the National Revenue.

Twelve articles or classes of articles pay three-fourths of the 300 million dollars per annum collected as tariff duties by the Government of the United States. The duties collected under the existing tariff law have averaged 300 million dollars per annum during the past three years, the largest sum being in the fiscal year 1907, when the total collections amounted to 329 million dollars. In that year, 1907, sugar paid 60 million dollars duty; cotton manufactures, 39 millions; leaf tobacco, 22 millions; manufactures of fibers, 22 millions; manufactures of silk, 20 millions; manufactures of wool, 20 millions; raw wool, 16½ millions; spirits, wines, and malt liquors, 16 millions; manufactures of iron and steel, 12 millions; earthen and china ware, 8 millions; chemicals, drugs, and dyes, 7½ millions; and fruits and nuts, 7 millions—the total for these twelve articles or groups of articles being 250 millions, or just three-fourths of the 329 million dollars of tariff duties collected in that year.

These figures are a summarization of an elaborate statement published by the Bureau of Statistics of the Department of Commerce and Labor. The statement shows the amount of duty collected in each year since 1820, the share of the imports which paid duty in each year, the average ad valorem rate of duty on all merchandise imported, and the average on the dutiable only, the duty collected per capita, and the amount of duty collected on each dutiable article in the more recent years. While the statement is a very elaborate one, covering in outline the tariff history of 88 years and showing the duty collected in recent years on thousands of different articles, its chief facts may be summed up in a few words. The amount of customs or tariff duty collected in 1821 was 19 million dollars, in 1830 28 millions, in 1850 40 millions, in 1860 53 millions, in 1870 192 millions, in 1880 133 millions, in 1890 221 millions, in 1900 229 millions, in 1907—the largest sum ever collected from tariff—329 millions, and in 1908 283 millions; the annual average in the past three years being in round terms 300 millions per annum. The duties collected amounted in 1821 to 35 per cent of the value of the total merchandise imported, in 1830 to 45 per cent, in 1850 to 23 per cent, in 1860 to 16 per cent, in 1870 to 42 per cent, in 1880 to 29 per cent, in 1890 to 29 per cent, in 1900 to 28 per cent, and in 1907 to 23 per cent of the total value of the merchandise brought into the country.

The share of the imported merchandise which paid a duty on entering the country has varied greatly. From 1820 down to 1833 less than 10 per cent of the merchandise entering the country came in free of duty. From 1833 to 1844 the share admitted free of duty ranged from 25 to 50 per cent of the total. From that date to 1857 the share imported free of duty ranged from 9 to 17 per cent of the total. From 1857 to 1863 the share imported free of duty ranged from 20 to 27 per cent. From 1863 to 1867 the share imported free of duty ranged from 12 to 19 per cent. From 1867 to 1873 the proportion entering without payment of duty ranged

from 4½ to 8½ per cent of the total. Beginning with 1873 the share of merchandise imported free of duty steadily increased, commencing with 27 per cent in that year and reaching 56 per cent of the total in 1892, 59 per cent in 1894, 48½ per cent in 1896, 49½ per cent in 1898, 47½ per cent in 1905, and 44½ per cent in 1908.

The share which the customs duties have borne in producing the revenues of the country have also varied with varying conditions. From 1791 on down to 1848 small sums were collected as internal revenue, seldom, however, reaching as much as one million dollars. In 1863, however, the present system of internal revenue was established, the receipts therefrom in that year being in round terms 38 million dollars, while the customs receipts were 64 millions. In the period from 1864 to 1868 the internal revenue receipts averaged 217 million dollars per annum, and the customs receipts 137 millions per annum. With the close of the civil war period internal taxes were modified, and the annual average of internal revenue receipts during the period from 1869 to 1897 was 133 million dollars per year, and the customs receipts 181 millions per year. During the Spanish-American war period from 1898 to 1902 the receipts from internal revenue averaged 264 millions per year, and the customs receipts 212 millions per year. With the modification of the internal revenue taxes following the close of the Spanish-American war the receipts therefrom again fell below those of the customs, and the annual average of the internal revenue receipts in the period between 1903 and 1908 was 245 millions, while those from customs was 284 millions.

It must not be supposed, however, that because a dozen articles or groups of articles pay three-fourths of the tariff duties collected the making of a tariff and the determination of rates of duty and the amount of revenue likely to result therefrom is by any means a simple matter. The rates of duty levied are not applied merely to groups of articles as a whole, but apply at different rates and in different terms to various grades and qualities of articles forming each group, and in many cases to the various grades of a material bearing a single name. Under the title of cotton cloth, for instance, the rates of duty on cloths not exceeding 50 threads to the square inch, counting warp and filling, are 1 cent per yard if the material is not bleached, dyed, or colored, but 1¼ cents per yard if bleached, and 2 cents per yard if dyed, colored, or printed. If the number of threads per square inch exceeds 50 and does not exceed 100 the rates are still higher—1½ cents per square yard on that which is not bleached, dyed, or colored and does not exceed 6 square yards to the pound, but 1½ cents per square yard on that exceeding 6 square yards to the pound and 1¾ cents per square yard if it exceeds 9 square yards to the pound; for that which is bleached still another rate obtains for the various grades; and for that which is dyed or colored another and still higher rate.

For cloths exceeding 100 and not exceeding 150 threads to the square inch the rates are yet higher for the various classes, whether unbleached, bleached, or dyed, and also in proportion to the number of square yards per pound. For other grades, exceeding 150 and not exceeding 200 threads to the square inch, the rates

are higher. For those exceeding 200 and not exceeding 300 threads to the square inch the rates are still higher; and for those exceeding 300 threads to the square inch even higher rates are named for the various classes and grades. On cotton cloths alone the duties collected in 1907 were but 5 million dollars. The class of cotton goods which pays the largest sum is that of laces, which paid in 1907, 24 million dollars, out of 39 millions paid by cotton manufacturers as a whole. This class of cotton laces includes laces, lace window curtains, tidies, pillow shams, bed sets, napkins, and other articles made wholly or in part of lace or in imitation of lace; veils and veiling, embroideries, edgings, insertings, and many other articles; and pays a duty of 60 per cent. Lace window curtains, pillow shams, and bed sets made on Nottingham lace curtain machines if they have six points or spaces to the inch, counting between the warp threads, pay $1\frac{1}{2}$ cents per square yard plus 20 per cent of the value; if they contain 7 points or spaces to the square inch they pay 2 cents per square yard and 20 per cent of the value; and so on, the rate increasing with the number of points or spaces to the inch (or in other words, with the increase in fineness of the lace), until those having 18 points or spaces to the inch pay $7\frac{1}{2}$ cents per square yard plus 20 per cent of the value.

The above complicated features of the "Cotton Goods Schedule" of the existing tariff law are stated somewhat in detail as an example of the difficulties which confront the maker of the tariff and the officers of the Government who determine the amount of duty to be collected and actually collected on the thousands of articles and many thousands of grades of different articles imported; and to further indicate that while it is true that twelve different articles or classes of articles pay three-fourths of the duties collected, the details of fixing the rates of duty, and of determining the amount of duty which should be paid and of calculating the amount actually collected, are, after all, most difficult and tedious, and explain in some degree the difficulties of the task of making a new tariff, of collecting the duties which it names, and of stating in concrete form the results of these operations.

Senator Frye proposes to amend the tariff bill and repeal the so-called reciprocal tonnage tax exemption law of 1886. By the repeal tonnage taxes imposed on vessels in trade between the United States and Mexico, Central America, the West Indies and British North America (except Ontario) can be reduced 33 per cent, which Senator Frye proposes.

By the Act of 1886 vessels are exempt from American tonnage taxes if clearing from foreign ports where no tonnage or light dues are imposed on American vessels. As is well known, few American vessels cross the Atlantic or Pacific. Late in May the British Parliament will vote on a bill to abolish light dues. If it passes, the British government will doubtless claim under the act of 1886 exemption for about \$325,000 American tonnage taxes annually in return for which American ships will be exempt from only \$8,000 in British light dues. Netherlands ships for years have secured exemption of from \$30,000 to \$40,000 in the United States, while no American ship enters ports of the Netherlands or Dutch East Indies to secure reciprocal advantages.

The Act of 1886 has proved unbusinesslike, and works equitably only with the Province of Ontario, from which American vessels are exempt from about \$20,000 tonnage taxes, Canadian vessels from \$15,000. The American lake interests, it is expected, will not object to the small sacrifice required in order to prevent a possible loss of

over \$300,000 in national revenue under existing law.

The purpose of the amendment is to remove the present inequitable arrangement and to forestall this loss, not to increase tonnage taxes—indeed, the net fiscal result will be to add only about \$7,000 to tonnage taxes paid by American vessels and \$43,000 paid by foreign vessels. Last year American vessels paid \$86,680 tonnage taxes, foreign vessels \$988,735, owing to the small amount of American shipping in foreign trade. The rates of American tonnage taxes are lower than European rates except Holland.

In the Senate of the United States, April 22, 1909.
Ordered to lie on the table and to be printed.

AMENDMENT.

Intended to be proposed by Mr. Frye to the bill (H. R. 1438) to provide revenue, equalize duties, and encourage the industries of the United States, and for other purposes, viz: Insert the following:

Sec. —. That a tonnage duty of two cents per ton, not to exceed in the aggregate ten cents per ton in any one year, is hereby imposed at each entry on all vessels which shall be entered in any port of the United States from any foreign port or place in North America, Central America, the West India Islands, the Bahama Islands, the Bermuda Islands, or the coast of South America, bordering on the Caribbean Sea, or Newfoundland, and a duty of six cents per ton, not to exceed thirty cents per ton per annum, is hereby imposed at each entry on all vessels which shall be entered in any port of the United States from any other foreign port, not, however, to include vessels in distress or not engaged in trade.

This section shall not be construed to amend or repeal section 2792 of the Revised Statutes as amended by section one of chapter 212 of the laws of 1908, approved May 28th, 1908, or section five of the said chapter 212 of the laws of 1908, or section 2793 of the Revised Statutes.

Section 4232 of the Revised Statutes, and sections 11 and 12 of chapter 421 of the laws of 1886, approved June 19, 1886, and so much of section 4219 of the Revised Statutes as conflict with this section, are hereby repealed.

This section shall take effect sixty days after the approval of this Act.

THE ISTHMIAN CANAL.

A wireless telegraph station will be erected at Porto Bello. The station will be built by the Canal Commission and the equipment furnished and installed by the Navy Department. The cost of installing a telephone system for the required service would cost \$15,000, to which would be added the cost of maintenance, and this plan was rejected. The cost of a submarine cable, the cost of installing which would be double that of the telephone. By the wireless system messages will be transmitted by the station at Porto Bello to the station at Colon, and from there transmitted to any part of the Canal Zone by telegraph or telephone. The cost of the wireless system will not exceed \$1,000, and the cost of maintenance nominal.

The hospital service, and treatment of the sick in the Canal Zone, has reached a very creditable and efficient point. System, service and methods have been established, and this organized branch well qualified to treat the most serious cases. Much has been accomplished by this department in the improvement of sanitary conditions, the building of hospitals at Colon and Ancon, and abolition of the makeshift line hospitals and camps. During the year 1908 treatment in the sick camps was rendered to 27,528 persons, twenty-three of whom died.

The total number of days of relief furnished was 51,849 at a cost of 27 cents per day per each patient, and the total cost of the sick camps for the year \$25,566.47.

The dispensaries gave relief to 451,694 persons during the year. The average cost of subsistence per day for patients in hospitals and sick camps was 33 cents. The total number of days of relief furnished was 438,652; the net cost of hospitals and sick camps was \$682,133.16, and the net cost per capita per day was \$1.55.

During the month of March 561 persons were arrested, representing 49 nationalities; 499 were men and 62 were women, and included 55 different offenses. The total effective police force in the Canal Zone on March 31 was 170, the payroll amounting to \$19,024.46.

The monthly expenditures for Canal work since July, 1908, were as follows: July, \$2,371,544.50; August, \$2,400,291.92; September, \$2,592,287.89; October, \$2,459,144.14; November, \$2,134,682.96; December, \$2,696,526.46; January, 1909, \$3,250,261.75.

Charges and credits against the Republic of Panama, on account of the installation, construction, maintenance, operation and repair of the water and sewer systems, and pavements of the cities of Panama and Colon,

various states different, but in only a few of the states is there a thoroughly uniform system of education, so that each city or town has some distinct feature in its school system. Among the colored children absence and tardiness are chronic, and under present conditions are practically incurable, although efforts to lessen the absence and tardiness are not spared. A constant change of residence, indifference on the part of parents and children, the large number of pupils to each teacher, and the legal restrictions on the punishment of truants and sluggards are the more important obstacles in the way of curing absence and tardiness.

PROPOSED STEEL VESSEL FOR THE LUMBER TRADE.

Capacity, 2,300,000 Feet Board Measure.

There are a few difficulties in carrying lumber in a steel vessel that are peculiar to this Coast, which are as follows:

The prevailing winds are northwest, and all of the lumber is north of San Francisco, which conditions necessitate the vessel going up against the wind and sea light.

The difficulty has been partially overcome by the wood vessels having a large rise of floor and a deep keel, which, together with having a heavier hull, has caused them to draw more water than the steel vessels. This was about the only way



In the Bakery, Cristobal.

shall be distributed, kept and stated separately for each city as follows: A. Water and sewer systems—(1) Capital and cost; (2) new installation; (3) operation and maintenance; (4) replacement. B. Reservoirs, pipelines and filtration plants—(1) Interest on capital cost; (2) maintenance; (3) replacement. C. Paving—(1) Capital cost; (2) new construction; (3) maintenance and repairs.

In the work now in progress of grading the schools of the Canal Zone, three great obstacles are encountered: (1) The difficulty of harmonizing the points of view of people coming from hundreds of different places; (2) the absence and tardiness; (3) the constant changing of places of residence.

It is probable that, in its extent at least, the first of these problems is unique in education. In the Canal Zone schools for white children the 722 pupils represent over 500 different schools, and a score or more distinct educational systems. Thirty-six states, two territories and the District of Columbia have representatives among the children, and the teachers themselves represent sixteen different states. Not only are the systems of the

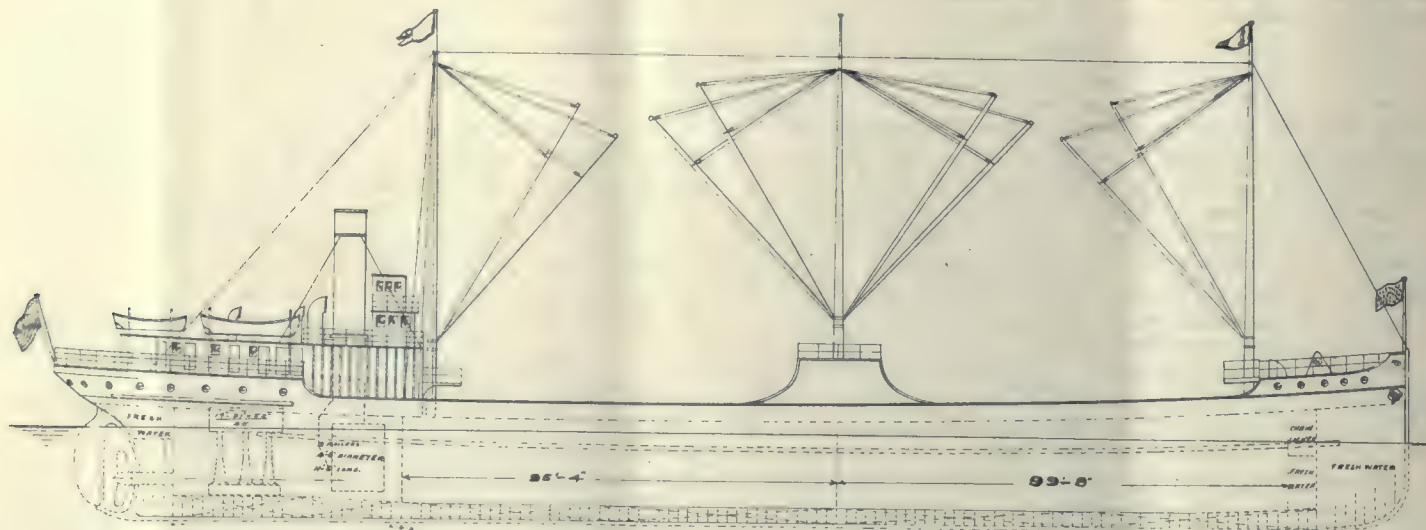
to cope with the difficulty, as it is not practicable to carry water ballast in a wood vessel, except to a limited extent.

The steel vessel carries water ballast in the double bottom, as well as the fuel oil. To help matters, the double bottom has generally been made a little deeper than the rule, which has added to the ballast capacity, but it has brought another difficulty into action, namely, when the vessel was loaded the center of gravity was too high owing to the large empty space in the double bottom, and before the vessel could be fully loaded she has become tender or cranky.

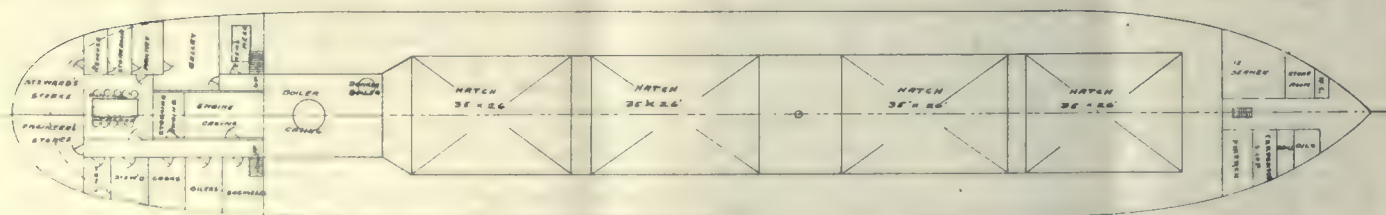
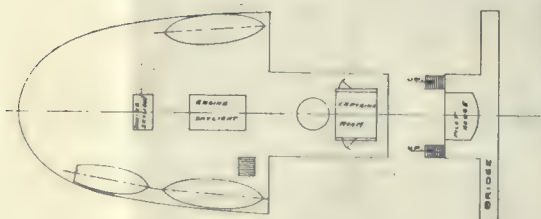
Several of the steel vessels on the Pacific Coast have fallen short of their designed carrying capacity for this cause. This could have been cured by following the same rule as the wood vessels—that is, by giving them a large dead rise and a deep keel. The only objection to this is that it takes a larger vessel to carry the desired cargo and the hull of a steel vessel costs in proportion to her leading dimensions—length, breadth and depth, irrespective of the fineness of the vessel.

To get the full benefit of the dimensions as regards carrying capacity, they have been made full in model. This has produced a type of vessel that carries well, but which has a flat bottom and full ends, especially forward. This has made the pounding in a sea way going up the Coast very severe and has caused considerable damage to the bottoms, necessitating great expense for repairs.

The solution of the problem of getting up the Coast then resolves itself into either fining the vessel or carrying more ballast, which means a large double bottom.



Length over all 298 feet
 Length after side of stem to forward side of stern post 279 feet
 Length after side stem to forward side of rudder post 287 feet
 Beam moulded 45 feet
 Depth moulded 22 feet
 Depth double bottom 38 inches
 Depth of hold to top of deck beam 19 feet 9½ inches
 Draft loaded (B. of T. skin) 18 feet 4½ inches
 Draft loaded with lumber (skin) 19 feet 5 inches
 Weight of 2,300 M. pine 3,595 tons



Side Tank Lumber Steamer, Designed by James Dickie, 112 Market St., San Francisco, Cal.

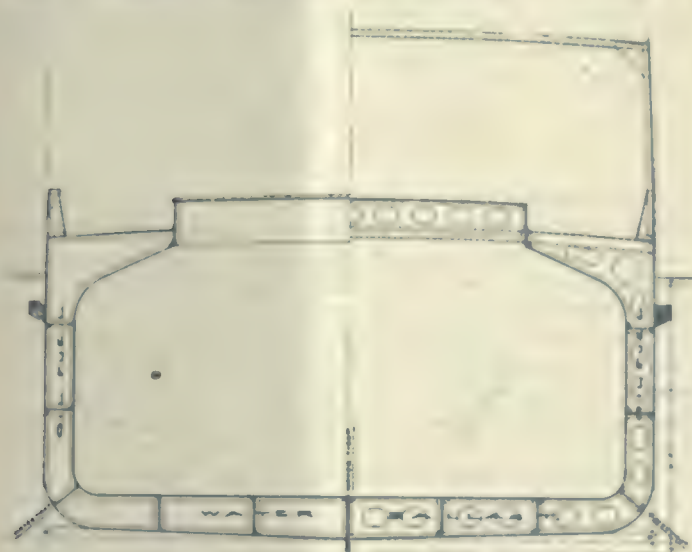
The solution for coming down the Coast loaded is to lower the center of gravity of the cargo, which makes the double bottom small; that is, the double bottom should be large going up and small coming down, which of course can not be done.

We have put the ballast on the sides and under the deck extending from the fore peak bulkhead to about the middle of the fire-room, the after ends being used as settling tanks. This has the advantage of making a clear hold without obstruction of any kind and a hold easily painted and taken care of.

The objection to carrying water ballast in this way is the well known one that all enclosed spaces which are wet and dry alternately and have heat on the outside corrode rapidly. This is exemplified by the rapid deterioration that takes place under the boilers of a steamer, where the entire destruction of the top of the double bottom, including floors, keelsons and longitudinals, takes place in from five to eight years where the boilers are within twelve inches or less of the double bottom. In the hold and under the engine where it is cool scarcely any deterioration takes place in twenty to thirty years.

We propose to carry the fuel oil in the sides down to the bilge, and, as every one knows, this oil prevents corrosion. Of course the entire space above the bilge is not required for fuel oil, but oil could be carried in the other spaces occasionally to prevent corrosion. The principal objection to the system is its additional cost and weight.

The additional weight of a ship of this size is only nine tons, which is obtained without reducing the weight or thickness of



Midship Section.

the outside plating or any strength member. The strength of the frame of the ship is materially increased.

The additional cost of the ship is about \$8,000.

Advantages of This Type of Vessel.

First—Less cost for maintenance.

Second—Increased ballast capacity for up-coast part of voyage.

Third—Greater internal capacity and easier stowage.

Fourth—Increased stability when loaded.

Fifth—Greater cargo-carrying capacity.

Sixth—Better return on the capital invested.

First—Less Cost for Maintenance.

This is due to the entire hold being a plain, smooth surface. The painting is much easier done, as there are no corners to hold rust and dirt. Should any repairs be necessary to the double bottom from grounding or pounding in a sea way they will be easier effected than if the vessel had been carrying oil in the double bottom. As the oil is carried above the bilge and the water in the double bottom, the place where the damage is likely to occur is cheaper to repair on account of being comparatively clean and free from oil.

Second—Increased Ballast Capacity.

This vessel has 590 tons more ballast capacity than the ordinary form of vessel with a four-foot six-inch double bottom, which shows so plainly on the midship section that the plain statement needs no proof.

This additional weight of water ballast gives the vessel twenty-five inches more immersion and the bar keel an additional ten inches, making a total of thirty-five inches more immersion light, which gives the propeller a better hold of the water, thus increasing its efficiency.

The extra draft will also greatly reduce the tendency to pound in a head sea and will reduce the repairs necessary forward. The keel will tend to make the vessel hold on better and steer a better course at all times.

The only objection is that it costs more than a flat keel and the vessel draws ten inches more water without carrying any more cargo. If draft of water is prohibitive or at a premium it can be left off.

Third—Greater Internal Capacity and Easier Stowage.

A careful measurement of the internal cubic feet of this vessel and an ordinary vessel of the same outside molded dimensions with a four-foot six-inch double bottom gives the side ballast vessel (1½ per cent) more actual internal capacity.

At first glance the statement looks like an exaggeration, but on close examination it is quite clear where the gain in capacity is. (a) The double bottom is lowered; (b) the size of the side framing goes into the tank; (c) the beam and frame corner brackets; (d) the side stringers; (e) the center stanchions are entirely left out, as we find the deck is strong enough to carry the deckload without them.

The hold of the vessel is entirely clear of all obstructions, such as side stringers, center stanchions, etc. The stowage will be much less broken, so that in fact we can say that this ship will stow 3 per cent to 5 per cent more lumber in the hold than the ordinary type of ship.

On account of the large hatches and more of them, and no obstructions in the hold, she will cost less to load and discharge.

A smaller vessel of this type will not stow as much in the hold as the ordinary type, but a larger vessel will show a larger percentage, because the side tank can not be made smaller for a small vessel, and is not required to be larger for a larger vessel. This is on account of the necessity for access or getting through the cellular construction for examination, although it is not required for strength.

Fourth—Increased Stability.

The double bottom of this vessel is only thirty-eight inches deep, in comparison with the fifty-four-inch double bottom of the other type. This allows the cargo to be stowed sixteen inches lower down. In other words, to put the center of gravity of the lumber cargo in the same place the vessel will carry thirty-two inches more deckload.

This type also eliminates the difficulty of loose liquid fuel in the double bottom. Taking an ordinary vessel with the fuel in the double bottom, with a tight center line, it will be found that when the fuel is partly burned out of one compartment, leaving the surface free, the metacentric height is reduced four and one-half inches. This is about equivalent to removing one foot of deckload.

It is always to be noticed that the double bottoms can never be filled solid full. It takes over twenty-four hours to fill the double bottom with oil and get air all out. Therefore not only is the compartment that is being used in a loose condition, but several of the others are in the same condition.

While we know these conditions exist, the loss of stability arising from them can not be calculated, as the exact conditions at any one time are unknown.

From what we are absolutely sure of, the loss of stability from these things is at least equivalent to an extra three and one-half feet of deckload, and beyond question more.

With the side oil tanks this condition of loose liquid is almost eliminated, as the tanks are only twenty-six inches wide, and the free surface is so small that it only amounts to about one inch off the deckload.

In the side tank vessel the stability increases as she proceeds on her voyage, as the oil is burned from the top and the center of gravity falls as the oil is burned. Consequently the stability increases instead of diminishes, while in the ordinary type, the oil being burned out from below, the stability decreases as she proceeds.

Fifth—Greater Cargo-Carrying Capacity.

We do not claim that this side tank vessel will carry more dead weight cargo. She will carry nine tons less on the same draft of water because she is nine tons heavier. She will carry 1½ per cent more bulk cargo in the hold. On account of the greater stability she will carry a larger deckload of lumber or other light cargo.

Some of the vessels here on the Coast can not carry their designed deckloads because they will not stand up owing to the conditions already noted.

We have shown that the figureable quantity of increased deckload due to the extra stability of the side tank vessel is about three and one-half feet, and there is still an unfigured lack of stability (which is well known to be there) to be accounted for in the regular type of vessel. This vessel, having the necessary stability, will carry the designed lumber cargo.

Sixth—Better Returns on the Capital Invested.

Vessels are like street cars; the dividend is in the straps, or the deckload lashings. The difference is that when the street car straps are well filled the fares are difficult to collect, while it costs less to load and discharge the deckload and the freight is as easily collected for the deckload as for the hold cargo.

The vessel costs just so much to run in proportion to the size and horsepower, irrespective of the cargo carried. Therefore a vessel that is a large carrier for the dimensions is much more profitable than a small carrier.

With under deck cargoes no vessel should be loaded below the British Board of Trade load line, but with a deckload of lumber a vessel is perfectly safe drawing 10 per cent more than the freeboard rules call for, the deckload furnishing the necessary freeboard, provided she has the necessary stability.

If we can secure the necessary stability to carry a good deckload, the vessel is safer at sea and pays better dividend on the money invested, even if the first cost is slightly more.

The vessel shown in the sketch is shown to illustrate the side tank idea, which we do not claim is original. Several vessels of a similar type have been built, but so far as we know none have been designed for the lumber trade.

The arrangement of the cargo, gear, cabins, etc., can be modified to suit the conditions of loading and discharging and the kind of wharves the vessel calls at. The crew accommodation can also be made to suit different conditions. All we wish to show is the side tank idea.

The vessel shown is of the following dimensions: Length over all, 298 feet; length from the after side of the stem to the forward side of the rudder post, 287 feet; length from the after side of the stem to the after side of the propeller post, 279 feet; beam molded, 45 feet; depth molded, 22 feet; depth of hold, 19 feet 9½ inches; depth of double bottom molded, 3 feet 2 inches; draft of water skin to British Board of Trade load line, 18 feet 4½ inches; draft of water (skin) to proposed load line, 19 feet 5 inches; weight of cargo, 3,595 tons; equivalent lumber at 3½ pounds per board foot, or 640 feet to the ton, 2,300,000 B. F.

LOCAL NOTES.

The Japanese liner Tenyo Maru arrived in port Tuesday, May 4, 1909, with a record list of cabin passengers, there being 148, which is the largest number this liner has ever carried.

The Howard-street wharf, of which a portion of the outer end fell into the bay under the weight of 1,000 tons of pig iron, is now closed to heavy traffic by order of the Harbor Commissioners. This section is the oldest along the seawall and has not been repaired for four years.

The P. M. S. S. Korea is expected to arrive in port on Monday, the 10th. The Korea has a cargo of 6,800 tons which includes raw silk, tea and other merchandise.

A Chinese transient passenger on board the steamer Curacao escaped while the vessel was lying at Broadway wharf on May 6.

The Auckland Chamber of Commerce have passed a resolution urging the Dominion Government to begin negotiations for the reinstatement of the old J. D. Spreckels Company steamship service from New Zealand to San Francisco. The Spreckels company will restore the old service with the same steamers previously used and now lying idle in San Francisco. An annual subsidy of from \$100,000 to \$125,000 was the amount suggested by the Chamber of Commerce.

"There will be no restoration of direct service to New Zealand by our line until the United States Government subsidy is practically doubled," said F. S. Samuels, assistant to the president of the J. D. Spreckels Company, recently. "The net subsidy paid us by the United States Government was about \$196,000 a year, and by New Zealand \$85,000 a year. We were making seventeen trips annually before the service was suspended.

"There is no immediate prospect of resumption of through service on this route."

Bates & Chesebrough have secured the contract to transport 350 tons of empty shells from Mare Island to Iona Island, N. Y., Mifflin, Pa., and Norfolk, W. Va., for the Government.

Bids were called for April 30 by the Government officials and the following tenders were made: Southern Pacific, 55 cents a hundred to destination; American-Hawaiian Steamship Company, 55 cents and 60 cents; Santa Fe, 75 cents to destination; Pacific Mail, 40 cents to New York; Bates & Chesebrough, 45 cents to destination.

The lowest bid was made on a basis of 30 cents ratio New York. The cargo will go on the ship Edward Sewall.

The Monticello Steamship Company will file a protest at the next meeting of the Board of Supervisors of Vallejo against the granting to the Independent Ferry Company of a franchise to operate a ferry between this city and Mare Island with the privilege of landing at the Main Street wharf.

A total of 3,155 boats have passed through the drawbridge of Oakland since the beginning of this year, according to the records of the bridge inspectors of the Board of Supervisors. This shows a substantial increase over the corresponding period last year, when but 1,522 boats passed through.

NORTHERN COAST.**Seattle.**

Frank Waterhouse, a well known marine transportation man, who has just returned from an extended trip through Europe, gives the following opinion of general business conditions:

"The situation is not overly encouraging. Business is very dull, not only in Great Britain, but in the eastern states of this country. The depression in shipping continues general, although I think the feeling is a little more hopeful. Owners do not expect much improvement in business until late in this year. Their opinion is that if there is a good crop in the United States this summer, especially in the Pacific Northwest, it will help tremendously." Mr. Waterhouse is manager for the Puget Sound of the Bank Line, and one of the results of his trip to London was the completion of a traffic agreement with the Canadian Pacific whereby the Bank Line steamers will handle some of the Canadian Pacific's business to and from the Orient. These vessels will make the ports of Seattle, Tacoma and Victoria.

* * *

The steamships Fremont and Shawmut, recently purchased by the Government for the Panama run, upon arrival at New York were placed on the Moore drydock. The propellers and shafts were subjected to a close scrutiny, but were found in good condition after the voyage of 15,000 miles.

* * *

Captain Charles F. Pond, of the lighthouse inspector's office for the thirteenth district, in Portland, has recommended the following aids to navigation provided for by Congress in an appropriation of \$60,000: Hog Rocks, Wrangel Narrows, Point Alexander, Lockwood Rock, opposite S. E. Battery Islets from range light at some place; Spike Rock, Burnt Island ledge, 200 yards northwest (Mag.) above south ledge; Bush Top Island; Anchor Point, Boulder Flat, 365 yards northwest by north (Mag.) above Vegetation Point; South Green Rock, south end South Flat; Middle North Flat, opposite Turn Point about 500 feet south, southwest three-quarters west (Mag.) from buoy 9.

Anticipating a heavy traffic on excursion steamers in Seattle and vicinity during the summer season, Collector of Customs F. C. Harper has issued a warning to owners and others concerned. The following notice from the collector is addressed to customs officers and others on the subject of enforcing the laws covering passenger-carrying vessels. It says:

"With the return of the excursion season and the consequent increase in passenger travel by water, extra precautions must be taken to enforce the provisions of the steamboat inspection laws against all steamers arriving and departing, to secure proper observance of the laws and regulations as to passenger signals, lights, etc., and to prevent the overcrowding of excursion steamers.

"Steamers carrying passengers in excess of the number allowed are liable to a penalty of \$500 under sections 4465 and 4500, R. S., which will be rigorously enforced. All irregularities discovered will be reported promptly to this office and are not to be condoned.

"Upon receipt of such reports, if it appears a penalty was incurred, the parties concerned will be given an opportunity to examine and answer the complaint before proceedings are taken to enforce the prescribed penalty, except in cases where the nature and circumstances of the offense demand summary action.

"In all cases the private parties will be advised to their right to apply to the secretary of commerce and labor for the mitigation or remission of the fine or penalty."

The treasury has promulgated a new rule giving permission to cord and seal heavy baggage of passengers bound to and from Alaska via British Columbian ports.

"Authority is granted for cording and sealing heavy and checked baggage containing no dutiable articles of passengers destined from Alaskan ports to the United States and vice versa via vessels of foreign bonded lines. If found upon examination that any baggage presented for cording and sealing contains dutiable articles over and above the exemption provided by law, which exemption will be allowed, duty on the excess will be collected prior to cording and sealing. Where duties are collected an official receipt will be given to the payor which will serve to clear his effects at his destination.

"The hand baggage of passengers leaving Alaska will be examined in the usual way in the United States, and hand baggage arriving in Alaska will be there examined."

Edward A. Born, owner of the schooner P. J. Abler, has secured the Government contract for delivering school supplies and merchandise for the natives at various Government ports from Dutch Harbor to Point Barrow, on a basis of 800 tons. Mr. Born's bid was between \$14,000 and \$15,000, but the Government will ship about 1,200 tons.

Captain Roy Devlin, of Everett, has purchased the seagoing gasoline power boat Lady Agries from the Dawhy Machine Company, of Tacoma, and will refit, rename and put her in commission on the Sound at Snohomish River log-towing in conjunction with its upstream gasoline tug Sunrise.

The Allen steamship line, operating between British Columbia and New Zealand, will discontinue that service after the sailing of the *Indravelli* from Vancouver in May, owing to the withdrawal of the subsidies of the New Zealand and Canadian governments.

The vessels of the Australian mail line, operated by Frank Waterhouse, of Seattle, will exchange traffic for Australia at Vancouver with the Canadian Pacific Railway Company.

The freight steamer *Seward*, which left this port despite the protests of underwriters, who stated that she was overloaded and improperly stowed, arrived at Cordova on record time, bettering her previous voyage by nine hours.

The Government life-saving tug *Snohomish* is now stationed at Neah bay, where she will remain a greater part of the year. The vessel will carefully patrol the west coast of Vancouver island, keeping a sharp lookout for vessels wrecked or in distress.

Tacoma.

The Weir-Waterhouse liner *Gymeric*, which arrived from the Orient April 30, has 2,000 tons of flour booked already for the Orient and many more tons promised. This unusual egress of flour is due to the scarcity in that country.

SOUTHERN COAST NOTES.

San Pedro, Cal.

The city engineer has been instructed to draw plans and make estimates on the cost of a municipal wharf at the end of the Miner fill in the outer harbor for deep draught vessels. Considerable dredging would have to be done in order that deep-drawing vessels might use a wharf on the city's frontage, as there is but eighteen feet of water on the bulkhead line, and at the end of the proposed slips there is but twenty-four feet. In order to accommodate the vessels of the American Hawaiian line thirty feet is required.

San Diego.

The San Diego and Arizona Railroad Company is preparing to construct the largest pier built by private interests in this port.

Long Beach.—The twin jetties that will protect Long Beach harbor from sea and sand have been completed at a cost of \$12,000. The jetties are forty feet wide at the base and ten feet wide across the top. The jetties are the first of the kind to be constructed on the southern coast. The arms extend 1100 feet into the ocean, which insures an even flow of the tides.

LEGAL.

Suit has been filed in the United States District Court by J. J. Moore & Co., coal dealers of San Francisco, against Howard Smith & Co., of Australia, for \$3,500 damages. The libelants claim that a cargo of coal received from Howard Smith & Co. was short several hundred tons. At the present time none of the vessels of Howard Smith & Co. are in port and none are scheduled to arrive in the near future, but when some ship of the defendant arrives it will be attached.

Portland—By a decision of United States Judge Silverton in the Federal Court last week, J. H. Schwaner, master of the German steamship *Tiberius*, was awarded a judgment for \$1,531 against Kerr, Gifford & Co., charterers of the vessel. The decision is practically a victory for Captain Schwaner, who asked for \$1,969.38 bonus for delay on the part of the exporting firm in loading the boat with wheat for a foreign port in November and December, 1907.

Aberdeen—The North American Construction Company's dredger *Coronado* has been attached by the Grays Harbor Mill Company for \$495 alleged to be due for lumber used in repairs. The company's dredger *Pacific* has been attached for \$600.

Seattle—James Moore, a stevedore, has filed a libel suit against the Boston Towboat Company's steamship

Hyades. Moore was injured through the breaking of a sling which dropped a load of freight on his head.

Herman Bruenegraff has filed a libel suit against the Alaska Steamship Company's steamer Santa Clara for \$20,000. Bruenegraff last September fell into an open hatch on the steamer Santa Clara, and charges that the hatch was left open through the neglect of the vessel's officers.

San Francisco—After taking testimony on the valuation of the steamer Acapulco, belonging to the Pacific Mail Steamship Company, which sunk in the bay while loading, August 26, 1907, United States Commissioner Francis Krull places the value of the boat while at the bottom of the bay at \$27,024.90. The freight aboard the vessel at the time is valued at \$6,805.21. Several suits were filed against the company and it was necessary to determine the limitation of liability.

The widow of Charles R. Lund, who was employed as engineer of the lumber vessel Minnie E. Kelton, which was wrecked off the coast of Oregon, May 2, 1908, has sued the Tillamook Navigation Company for \$20,000 for the loss of her husband.

A. J. Nielson has also filed suit against the Tillamook Company for \$10,000 damages.

Marine Decision.

Liability of Owner of Vessel.—Where the owner of a vessel employed the captain and chief engineer, and the captain employed the mate who employed the sailors, and the charterer could not discharge the captain without the owner's consent, and if the expenses exceeded the receipts, the owner paid the deficit, there was not such a surrender of control on the part of the owner to the charterer as to relieve the owner from liability for injuries to a seaman by the negligence of the mate.—*Nelson vs. Western Steam Navigating Company*, Supreme Court of Washington, 100 Pacific, 325.

NOTES.

Tehuantepec-Orient Route.

New York—The American-Hawaiian Steamship Company announces a special sailing for Japan, China and the Philippines (via the Tehuantepec National Railway Co. and the Mexican-Orient Steamship line) as follows: Leave New York, May 8; leave Mobile, May 8; leave New Orleans, May 10; arrive Yokohama, June 20; arrive Kobe, June 23; arrive Shanghai, June 27; arrive Hongkong, June 30th. Speaking of the new service, Traffic Manager A. P. Durden said: "The announcement is interesting, first, because it inaugurates an entirely new route to the Orient, and, second, and chiefly, because it enables American merchants in the eastern and southern States to land their goods in the Japanese markets in forty-two days from New York and Gulf ports at reasonable rates. This is less than one-half the time usually necessary via the Suez routes."

Vessels of the grain fleet which left San Francisco toward the end of last year continue to arrive at various destinations in Europe and the United Kingdom. Word was received here yesterday of the arrival in England of the British ship *Acamas*, the French bark *Jean* and German ship *Albert Rickmers*. Captain Bright took the ship *Acamas* out from here December 12, with 66,177 centals of barley, valued at \$99,768. She arrived at Falmouth last Tuesday after a smart passage, occupying 135 days. The French bark *Jean*, Captain Le Gal, sailed

from San Francisco November 29th, bound for Ipswich. She had on board 63,815 centals of barley, valued at \$94,927, shipped by Balfour, Guthrie & Co., and passed Seilly on Wednesday last. With Captain Dierks at the helm the German ship *Albert Rickmers* sailed for London from this port December 11th, last year. She passed the Lizard April 26th. She had on board 19,640 centals of barley, valued at \$29,425, shipped by Balfour, Guthrie & Co.

* * *

Orders have been issued by the Navy Department of the Pacific fleet, as follows: The Washington, California, South Dakota and Tennessee will make up the first division. In the second division will be the Colorado, West Virginia, Maryland and Pennsylvania. The Tennessee will be the flagship of the fleet and the West Virginia the flagship of the second division. Admiral Swinburne is called to Washington for temporary special duty.

* * *

Up until the present time tea has been allowed entry into the United States untaxed, but as the original draft of the Payne tariff bill provides a duty of 8 cents a pound on tea entering the United States the tea trade of Japan, and especially that of the Osaka Shosen Kaisha, the new Japanese line, which will begin operating out of Tacoma August 1st, will receive a severe blow.

Tea exported from Japan during 1907 totaled 250,000 piculs. Formosa's exports alone reached 166,000 piculs. The picul is the equivalent of 135 pounds, so that in American measurement Japan's exports were 33,750,000 pounds, and those of Formosa 21,600,000 pounds, or a grand total of 55,350,000 pounds. This is equivalent to 27,675 tons. The main buyers of this output were Great Britain and the United States, the proportion taken by each country being somewhere near one-half the total. The revenue from Japan and Formosa tea entering the United States with a duty of 8 cents a pound in force would amount to more than \$200,000 annually, which amount now goes to the profit account of tea culture and export.

* * *

The breakwaters constructed at Salina Cruz, at a cost of several million dollars, are to be removed, owing to the sea washing the sand and filling up the harbor. There were two large breakwaters constructed on either side more than 260 feet wide at the base and 36 feet wide at the top, and between them the sea is silting up the outer harbor so that despite the continual dredging it is becoming shallow. As a consequence the position of the breakwater will be changed, which will mean an additional expenditure of several millions.

HAWAIIAN NOTES.

By the last trip of the *Matson S. S. Hilonian* from San Francisco to this port the vessel was in communication with the wireless station at Kahuku when out 1,450 miles. This is a new record for a single kilowatt machine. The passengers on board the *Hilonian* are kept informed of all the news of the day through the medium of a wireless magazine published on board every day.

PHILIPPINES NOTES.

Customs collections at Manila for the month of March exceeded the million-peso mark, the total collections being 1,065,516.59. (A peso is equal to 96.5 cents in U. S. currency.)

The German steamer *Plume* reached port March 26 from Saigon with a full cargo of rice.

The British freighter *Indrasamba* arrived at this port April 12 from Japan ports and Hongkong to load a cargo of hemp for Boston and New York.

The liner *Rubi* sailed to Hongkong Saturday, March 27, with forty saloon passengers.

The *Campania Maritima* liner *Francisco Reyes* sailed for Cebu March 25 with a general cargo.

The British freighter *Cranley*, Captain *Davies*, arrived March 24 from Norfolk with a cargo of coal for the navy at Cavite.

The *S. S. Schuykill* sail March 24 for the Atlantic Coast via Singapore with a cargo of 9,000 bales of hemp.

The German *S. S. Nicomedia* arrived March 24 from Portland, Oregon, via Kobe, with a general cargo from the Pacific Coast.

The Weir line freighter *Kumerie* arrived March 31 from Puget Sound via Hongkong with a general cargo.

The British freighter *Banca* sailed for Marseilles via Singapore April 3, with a cargo of 6,100 bales of hemp.

MEETING OF THE BOARD OF HARBOR COMMISSIONERS, MONDAY, MAY 3, 1909.

The Board was advised that the plans and form of contract for the construction of pier No. 34 involve an infringement of certain letters patent granted by the United States, and that the infringement consists in the proposed combination of the concrete wall, together with the method of tying it to piles; also that a royalty of \$2 a lineal foot for any construction undertaken in accordance with the plans referred to. The attorney was requested to report as to what liability, if any, attaches to the Board.

Hickman & Masterson informed the Board that they will be compelled to occupy seawall lot B for a week or two longer than May 1, and request they be charged rent accordingly.

The secretary was directed to collect rent for the month of May, and later allow a refund pro rata for the number of days in said month after the space occupied by them on said lot has been entirely vacated.

The engineer of the Board was directed to prepare an estimate of the number of Koetitz patent piles to be used during the period of one year.

The engineer of the Board was ordered to prepare estimates for the cost of certain repairs to piers Nos. 9 and 11, per request of the Pacific Coast Steamship Co.

Meeting adjourned to Thursday, May 6, 1909.

Meeting of Thursday, May 6, 1909.

Contract with W. L. Graff for furnishing materials and constructing a shed on Pier No. 21 (Filbert-street wharf) was signed by the Board and the bond, \$6,500, with the Empire State Surety Co. was approved by the Board.

Contract with the Santa Cruz Portland Cement Co. for Portland cement was signed by the Board, and a bond of \$20,000, with the Pacific Surety Co., was approved.

The bill of the Thomson Bridge Co. for repairing wharves, piers, bulkheads and ferry slips as per contract, amounting to \$7,832.10 was allowed and ordered paid.

Informal bids for furnishing 250 brace tie plates, 350 plain tie plates, and 50 pairs of channel joints, f. o. b. San Francisco, were opened, as follows: The Pennsylvania Steel Co., 350 cushion tie plates, fitting 9-inch girder rail, section 263, at 45 cents each; 250 brace tie plates fitting above section, 65 cents each; 50 pairs channel joints, complete with bolts and nuts; all for delivery.

f. o. b. San Francisco. On motion the above bid was accepted.

P. J. Moliterno asked permission to make alterations in premises at Seawall Lot No. 16. On motion lessee was given permission to make such changes at his own expense, subject to the approval of the Board. He also asked permission to sublet all or portion of realty held by him under lease at Seawall, lot No. 16. On motion said permission was granted.

Informal bids were opened for the construction of an iron fence for the Southern Pacific and Key Route waiting rooms, and the bid of the Ralston Iron Works, on the basis of their bid, namely, for the sum of \$1,515, said Ralston Iron Works will furnish bond in the sum of \$800 as sole surety.

J. Kinnican, superintendent of the Atchison, Topeka and Santa Fe Railway Co., petitioned the Board for an extension of 40x15 feet of the present supply house of his company on the wharf between slips Nos. 2 and 3 at the ferry depot, and proposed a rental of \$15 per month for such additional space. The matter was referred to the engineer of the Board for report.

Mr. Dennison offered the following resolution and moved its adoption:

Whereas, The bonds authorized to be issued under that certain act of the Legislature entitled "An Act to provide for the issuance and sale of State bonds to create a fund for the construction by the Board of State Harbor Commissioners of the seawall and appurtenances in the City and County of San Francisco, to create a sinking fund for the payment of said bonds, and providing for the submission of this act to a vote of the people," approved March 20, 1903, and known and cited as the "San Francisco Seawall Act," have been duly executed, as required by the provisions of said act and by law, the said bonds being numbered consecutively from 1 to 2,000.

Resolved, By the Board of State Harbor Commissioners, assembled in regular session, that Hon. W. R. Williams, as the State Treasurer of the State of California, be and he is hereby requested to sell 500 of such bonds in accordance with the provisions of said act, in such parcels and numbers as said State Treasurer shall be directed by the Honorable James N. Gillett, as Governor of the State of California, under the seal thereof; and be it further

Resolved, That the Secretary of the Board be, and he is hereby directed to forward a certified copy of this resolution to the Governor of the State of California.

Commissioner Teller seconded the motion, and it was unanimously adopted.

Commissioner Dennison offered the following resolution and moved its adoption:

Resolved, That from June 1, 1909, the rental for all berth space on wharves, docks and bulkheads under the jurisdiction of the Board of State Harbor Commissioners, where the rental is now fixed on a basis of 31¼ cents per lineal foot per month, be and the same is hereby fixed at 50 cents per lineal foot per month; provided that this recommendation shall not be construed to charge the rate of rental for space where a higher rate than 50 cents per lineal foot per month is now being charged. The resolution was unanimously adopted.

The engineer reported that he had investigated the possibilities of obtaining eucalyptus for piling, and its value and adaptability for that purpose. The matter will be considered at the next meeting of the Board.

Also, that Gray Bros.' Crushed Rock Co., contractors for furnishing rock and labor for the construction of Section No. 11 of the seawall, have to April 30, 1909, in-

clusive, furnished 7,087.49 tons at 69 cents, or \$4,925.81, less the usual 25 per cent, or \$1,231.45, and less amounts paid on estimates Nos. 1 and 2, or \$2,412.94, leaving the amount due at \$1,281.42, which was ordered paid.

Also that W. L. Graff is entitled to 25 per cent retained on his second estimate of April 1, 1909, for improvements at piers Nos. 42 and 44, the amount due being \$723.50, which was ordered paid.

Also recommended the purchase of a new dredge bucket for dredger No. 3, to cost \$2,500. The engineer was ordered to prepare plans for the dredge bucket desired.

The engineer of the Board and the superintendent of the Belt railroad, in a joint report, recommended rearrangement of tracks of the property of the State at Sansome and Lombard streets, which are rented to the Northwestern Pacific Railroad Co. The estimated cost was \$3,500.

The recommendation was adopted and the work ordered done, informal bids being invited for twenty tons of sixty-five-pound rail, with fish plates, and the purchasing agent was directed to purchase 240 ties and 120 yards of ballast for such work. The engineer was also directed to prepare plans for the necessary paving incident to the rearrangement of the tracks and informal bids are invited for such paving as per plans.

The Chief Wharfinger recommended that the Pacific Tank Co. be assigned the space now occupied by the Gray Bros. Crushed Rock Co. for bunker purposes at Channel street, between the Mercantile Box Co. and Fourth street, provided they take the entire space of 350 feet now occupied by the Gray Bros.

Adjourned until Monday, May 10, 1909.

DEATH OF CAPTAIN J. F. ROBINSON.

The real cause leading to the death of Captain J. F. Robinson, by suicide, will probably never be known. Over-sensitive at the loss of his vessel and dissension among the crew of the ill-fated S. S. Indiana, no doubt, hastened the death of the veteran captain. Brooding over his loss, the first while engaged in his chosen profession, continuous from boyhood, and during which he held many positions of trust and great responsibility. For the past sixteen years Captain Robinson had been in the employ of the Pacific Mail S. S. Co., serving with credit as master on almost the entire fleet. In the one unfortunate mishap of his seafaring life, sympathy and confidence were expressed in writing and signed by every passenger of the wrecked vessel and presented to Captain Robinson. His interest in the passengers of the vessel, anxiety for the property of his employers, and his determination to remain with the wrecked vessel till the end speak volumes in favor of his sterling character.

Captain Robinson is survived by his wife and five children, Leo, Alma, Frances, Muriel and Charles, residing in Alameda.

The funeral services were held at the beautiful new home of the family, conducted by Rev. Hitchcock, and the remains carried to their last resting place by those of his colleagues in the employ of the Mail Company, who join with the bereaved family in mourning the untimely death of a loving husband, kind father and noble friend.

Captain Frank Boyd, the oldest San Francisco bar pilot in the service, died at his home in San Mateo on May 2, at the age of 77 years. Captain Boyd was a pilot in San Francisco for fifty years and no one was better known or more highly esteemed along the waterfront.

RECENT CHARTERS.

Tacoma—Shipments of 5,000,000 feet of heavy timbers will be sent by the Pacific National Lumber Co. to New York in the near future. The ship Joseph B. Thomas will take the first cargo and is at the present time at Eagle Harbor preparing for the voyage. The cargo of the American ship Henry Faling will be the largest ever shipped from the Sound. Negotiations are now pending for the chartering of another ship which will also load here.

Schooner R. C. Slade loaded lumber at Aberdeen for Santa Rosalia owners' account. British bar Howard D. Troop from Portland to United Kingdom, November loading. Invertag from San Francisco to Australia—lumber, time charter. Peruvian bark Alliance from Puget Sound to west coast of South America, lumber, owners' account. S. S. Melville Dollar, Mendocino to Guaymas, lumber, owners' account. German ship Frieda, Puget Sound to Europe, wheat, at 27s 6d.

S. S. TEXAN.

The frontispiece is of the large interocean freighter Texan, belonging to the American-Hawaiian Steamship Company. This company is noted for the care they take to get a ship that is of the highest class, and reap the results therefrom.

The Texan is a steel twin-screw, two-deck deep framing vessel built by the New York Shipbuilding Company at Camden, N. J., in 1902, and has made some remarkable passages.

She is 471 feet long by 57.2 feet, and 31.8 feet depth of hold; 35 feet moulded depth; draws 28 feet 10 inches of water and has 6 feet 2 inches of freeboard. The loaded displacement is about 18,000 tons, and the deadweight carrying capacity is about 12,000 short tons of sugar. The gross tonnage is 8615 net, tonnage 5636, and the under deck 8410 tons.

The vessel has a double bottom, which, when full, carries about 2654 tons of water.

The propelling machinery is composed of two quadruple expansion engines with cylinders 19"x28½"x41"x60", with 42" stroke.

Steam is furnished from three Scotch boilers, with four corrugated furnaces to each boiler. The grate surface is 216 square feet and the heating surface 8184 square feet. With forced draft and good coal the vessel can develop 4000 horse-power, but at ordinary sea steaming the plant is driven at about 3650 horse-power, averaging 11½ knots.

The engine room and boiler room equipment is up-to-date in all particulars for a vessel of her class, equipped with a donkey boiler carrying 120 pounds of steam and an electric light plant.

The Texan is now using oil fuel atomized in a Lascoe burner by means of the low pressure air system from positive blowers, and is very economical, delivering a horse-power on about 1.14 pounds of oil per horse-power per hour.

The present run of the Texan is from Salina Cruz to Puget Sound, calling at San Francisco and the Hawaiian Islands.

Proposals have been issued by the Navy Department, soliciting bids for the construction of seven torpedo boat destroyers. The bids will be opened May 29.

The Alaska Steamship Company's steamers Seward, Dolphin and Olympic will be equipped with wireless in the near future.

Pacific Merchant Marine

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ADVERTISING RATES ON APPLICATION

Address All Communications to the Pacific Merchant Marine

Elsewhere in this week's issue will be found information by which Pacific Coast merchants may procure a portion of the trade of the Isthmian Canal Commission. In last week's issue we commented on this same subject.

In the building of a canal on the Isthmus the one great question of access to the Pacific Coast predominated all others. American and foreign statesmen made this the talking point of their arguments. Our wonderful resources, agricultural and mineral, must be reached by the shortest possible route and at a minimum cost. Fortunately for the United States the Isthmus was owned by a friendly foreign government, willing and anxious to grant a franchise or dispose of territory in the open market by which the canal could be built. National, private, corporate and foreign capital was frequently tempted by the investment. If Pacific Coast resources were used to make the canal a reality the arguments made still hold good, and the states bordering on the Pacific are entitled at least to a proportionate share of the patronage of the Isthmian Canal Commission.

Sentiment is not an element of construction in the Canal Zone, nor do our merchants apply for charity; but they do insist upon an equal chance with other and more favored sections of the Union. We are open to criticism in many of our industries, and in many others are better qualified to criticize.

The bill recently introduced in Congress providing for the building and operation of ten 5,000-ton steamers to operate between Pacific Coast ports of the United States and La Boca offers a ray of hope to Pacific Coast merchants, and a silent apology for the purchase and removal from the Pacific of the steamships Fremont and Shawmuth, which arrived during the present week on the Atlantic to carry goods from New York to the Canal Zone. This transaction would appear ordinarily as routine business, but if the two vessels had been allowed to remain on the Pacific to perform the same service as will be expected of them on the Atlantic, Pacific Coast merchants would be in a position to compete with New York merchants for supplies to the Isthmus, and a ten

to twelve-day service could have been established between Puget Sound and La Boca.

Owing to competition of the foreign merchant marine, the Fremont and Shawmuth were forced from the over-sea trade. Nothing remained but to engage in coast-wise traffic either by Government or private ownership. Private interests had made plans to build vessels for the Panama trade. The Government required vessels to carry supplies to the Canal, and have maintained a fleet for this purpose on the Atlantic Coast for some time. The vessels engaged therein leaving New York with full cargoes and returning from Colon with empty holds. By this means merchants on the Atlantic Coast are provided by the Government with a six-day service between New York and Colon, which service will now be augmented by the addition of the Fremont and Shawmuth, removed from the Pacific, while the merchants of this Coast are left to the tender mercies of the railroads and Pacific Mail interests, who now monopolize the coastwise traffic of the Pacific between Puget Sound and Panama, and publicly state that if any concessions are granted to Pacific Coast shippers on the Panama railroad (Government owned) that all Pacific Mail freight crossing the Isthmus will be shipped by way of the Tehantepec railroad, who could not afford to permit the Fremont and Shawmuth to remain on the Pacific and, under Government ownership, enter the service to carry a full cargo to the Canal, make connections with the Government railroad fed by Government vessels on the Atlantic, and thus return to the Pacific Coast fully laden, in less than one-half the time consumed by the Pacific Mail S. S. Co.

Past experience has taught the people of the Pacific Coast what can be expected from the railroads and allied interests. Past and present experience has shown them what can be expected from the Government. Past, present and future experience only will convince them of the benefits of concerted action, an aggressive movement for a greater Pacific Coast, a determination to learn our true condition and to be true to its component parts. We have much to be proud of, our present condition probably indicating lassitude resulting from over-confidence. Our wonderful resources have multiplied many times in the past fifty years. No reasonable argument can or ever has been presented why the Pacific Coast should not develop as rapidly, if not more so, than any other section of the United States. Many problems in the progress of civilization have been solved by people of much less intelligence, and under greater disadvantages. Some material cause exists. Many ridiculous methods have been resorted to, thousands of theories have been advanced, all tending to cloud the issue. Some writers have severely criticized the climates of Washington, Oregon and parts of California but failed to state the fact that steamboat tourist traffic of San Francisco, Portland and Seattle for the year 1906 (latest reports) was 50,000,000 passengers or 14 per cent of the total steamboat tourist traffic of the United States. Others again are still commenting upon the great disaster of April, 1906, in San Francisco, but fail to note the complete recovery and building of the most modern city of the United States within a space of three years. The Bureau of the Census of 1906 only have given correct figures for the export trade by water of Pacific Coast products amounting to 13,301,293 net tons and valued at \$96,748,326.

Familiar with every movement which has retarded the progress of the Pacific Coast, and familiar with each and every brand of our resources, yet we are content to be petted and pampered by a bill placed before Con-

gress for the benefit of Pacific Coast commerce, and calmly view the departure of the Fremont and Shawmuth without raising a dissenting voice, or realizing that either one or both of these transactions are significant of the proverbial lemon. We are certain that if it became necessary for the Government to purchase the two steamships to facilitate the work of construction on the Isthmus, and the interests of the Government were being conserved purely and simply, the vessels would have been assigned to the Pacific, to establish complete connection by the Government between New York and the Pacific Coast. This one comparatively small business transaction by the Government becomes monumental when applied to conditions on the Pacific Coast. Preferably give us a merchant marine on an equal footing with our own and foreign countries than the right of appeal to consolidated railroad interests representing \$11,000,000,000, or over 10 per cent of the total wealth of the United States.

SHIPBUILDING NOTES.

Union Iron Works.

S. O. ship Aeme on Hunters Point drydock Thursday and Friday for hull repairs.

S. S. Washtenaw on Hunters Point for repairs to shaft and wheel.

S. S. Senator on floating dock for cleaning, painting and shaft work.

S. S. George Loomis on floating dock for general hull work.

Tug Sea Rover at works for repairs to boilers.

Grace Dollar at works for miscellaneous repairs.

S. S. Roma left works Monday, the 3d.

S. S. Magara left works Thursday, the 6th, after being cleaned, painted and generally repaired.

Loading two locomotives and eighty flat cars on various schooners for the North.

Several hundred Japanese officers and cadets of the visiting training ships Aso and Soya will visit the works on Saturday, the 8th, on the invitation of president.

Moore & Scott.

San Mateo—Work of installing winches and booms about completed. Vessel has been on the Moore & Scott Iron Works ways and was cleaned and painted. This is the largest vessel taken on these ways, being 3,000 tons gross, and no difficulty whatever was experienced in hauling her out. While on the dock the tail shaft was drawn in for examination and the rudder was lifted for repairing. She will leave for the north about the 15th of May to enter her new charter with Schumach & Hamilton.

Winnebago is laid up at Moore & Scott works undergoing repairs to her hull on account of damage sustained last year when she ran aground.

Shasta is on the dock being cleaned and painted and receiving a new propeller.

The Oakland float of the Moore & Scott Works was extremely busy for the month of April, this being their first work at the new place. The dock was busy every day in the month and the new owners are well pleased with their new acquisition.

John Twigg & Sons.

Launched Saturday, the 1st, two launches of the same dimensions, viz., 33 feet length, 7 feet beam and 33 inches draft. One is to be used on the Sacramento river as a butcher boat and the other on the San Joaquin as a fruit

boat. On the trial trip the boats made 12 miles on 16 horsepower.

Constructed yacht tender for Mr. J. V. Coleman of S. F. Y. C.

Installing new propeller and overhauling hull of launch Konocti prior to sending her to Seattle to participate in the speed races.

C. W. Smith, formerly Smith & Olsen, building 25-foot launch to be used in fishing about Santa Cruz. The boat will be 7 feet beam, 24 inches draft, compromise stern, equipped with 7 horsepower California gas engine.

Building 20-foot, 5-foot beam, 18-inch draft pleasure launch to be equipped with 4 horsepower California gas engine.

Rebuilding Government launch Madrona. Engine will be changed from a steam to a 17 horsepower gas engine. Exterior rebuilt in Spanish white cedar and oak.

The engine of the launch Tiburon, belonging to G. Shimea, the Japanese potato king, is being changed from a 12 horsepower to 25 horsepower Union.

The 35-foot launch belonging to B. R. Banning on way being overhauled.

William Cryer.

Yacht belonging to R. Rideout of San Francisco being equipped with 14 horsepower auxiliary gas engine.

Building a scout boat for the Pacific Electric Light and Power Company. The dimensions are 26 feet in length, 6 1-4 feet beam and 28 inches draft.

The steamer Triton, the first of the two sister vessels built by the Anderson Steamboat Company of Seattle, for travel on Lake Washington during the Alaska-Yukon-Pacific Exposition, was successfully launched at the company's shipyards at Houghton April 24. The Triton is 95 feet over all, 8-foot beam and 6-foot draft, with 180 horsepower designed to make seventeen to eighteen miles an hour.

Astoria.

The launch Hazel and Helen went into commission April 30. The craft was built at the Driscoll boat yard for the Miller-Sands Fishing Company, and is to be used as a tender for seining grounds. Her dimensions are: Length, 34.9 feet; beam, 10.4 feet; depth, 2.4 feet. The launch is equipped with a 20-horsepower gasoline engine.

Vancouver.

The Western Transportation and Towing Company's new steamer Annie Comings was launched April 29 and will go into commission about the middle of May. The vessel will be used for towing and freighting. Her dimensions are 151 feet long, 32.6 feet beam and 5.6 feet depth of hold. The height of the freight house is nine feet.

The new Vancouver-Portland ferryboat was launched April 29 and went into commission immediately, displacing the old City of Vancouver. The new boat is of 398 tons register, is 148 feet between the gates, 54 feet 11 inches over all in width, and only draws 39 inches of water, which is less than the old boat. She is capable of making 15 miles an hour, which is five miles an hour faster than the former ferryboat.

The repairs to the S. & H. S. S. St. Croix are rapidly nearing completion at the Moran yard of Seattle. When completed she will run to Nome during the summer.

The U. S. battleship Oregon will be thoroughly overhauled and the latest equipment installed after being out of commission two years. The Oregon was placed on the drydock at Puget Sound May 3, and the repairs will be rushed to completion in order to have her in commission before the fall.

PROPOSED ORGANIZATION

OF

The Pacific Coast Commercial Bureau

Our Infantile Efforts and Hopes for the Rehabilitation of the American
Merchant Marine receive encouragement.

On January 9 of the present year Pacific Merchant Marine made its first appearance in public. One object prompted the enterprise. Many predictions were made upon the success of the same. Our efforts have been crowned with success, to the extent that we are justified in placing our magazine at the disposal of those who fully appreciate the commercial advantages of the Pacific Coast and who are willing to inaugurate a movement from which results are sure to follow.

With this object in view, each merchant citizen of the Pacific Coast interested in the commerce thereof is respectfully requested to forward his name and address to this office. When sufficient names have been received notice will be sent from this office of a meeting to be held wholly and solely for the purpose of forming an organization in the interest of the commercial resources of the Pacific Coast.

Pending completion of the proposed organization, no person in the employ of this paper is authorized to call upon or otherwise communicate with you, and we earnestly request that any breach of this fact shall be promptly reported at our office.

PACIFIC MERCHANT MARINE,

95 MARKET STREET,

SAN FRANCISCO, CAL.

STUART B. DUNBAR 211 Buckley Bldg.
Market & Spear Sts.
San Francisco
Phone Kearney 4731
NAVAL ARCHITECT
Yachts & Work Boats of All Classes Designed & Construction Superintended

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PLEASURE CRAFT



SAN FRANCISCO YACHT CLUB OPENING.



YACHTING begins today in earnest for the members of the S. F. Yacht Club. An elaborate program has been prepared for this afternoon and evening and the club house in Sausalito will be thrown open to a large number of guests. The opening was scheduled to take place last Saturday but, owing to the Corinthian opening taking place on

that day, was postponed. The San Francisco Yacht Club is very strong this season and has an unusually large number of boats enrolled in its fleet, some of which are among the finest on the bay.



Schooner Martha—Com. Hanify

Will you assist at raising the lid?

Opening day will be May the 8th and the lid will be in three sections.

The Commodore will start the ball with a salute from his 12-inch gun, at 12 m.

1st Section. Terpsichorean evolutions will take place at the club house from 2 to 5 o'clock. Bring your best girl, or see that some other fellow's girl gets there.

2d Section. Dinner for members only at 7 o'clock.

This is the real party, and you will see the reason for raising the lid. Under it will be a Ciupino dinner cooked in a mammoth kettle by Al Hanify, who doesn't cook for the Fairmont because he is too good for them. It is pronounced "Chip-peen-o" and you will pronounce it good. Al will eat it, too.

Return the enclosed postal card not later than May 5th, so that the chef and his muckers can tell how many chickens are to be assassinated.

Third Section. The play's the thing. This will take place after 8 o'clock, when you have licked your plates. It is hoped and expected that the dinner will be so good you'll not care how bad the play will be. It will be bad enough. Some of the worst talent to be had has been

procured, and your guns will be removed on entering the hall.

Sunday, May 9, the fleet will cruise in squadron, for which orders will be issued.

Report on board the flagship Martha at 10 o'clock for orders.

H. A. RUSSELL,
Secretary.

J. R. HANIFY,
Commodore.

PACIFIC MOTOR BOAT CLUB.

The Pacific Motor Boat Club will hold its official opening this afternoon in the club house at Belvedere. This will begin the second season of the club, and the officers and members are very enthusiastic as to its success.

The P. M. B. C. has taken marvelous strides since its foundation last June and although the youngest club on the bay has by no means the smallest membership. There have been several new boats enrolled in the fleet, and this season will see some of the finest motor yachts on the bay flying the P. M. B. C. pennant. Commodore Bowers has had his Corsair entirely remodeled and converted into a raised deck cruiser with ample cabin accommodations. J. E. Hax's Liberty, one of the most successful cruisers on the bay, is in fine trim, and Captain Crocker's Al Moran has been extensively overhauled and will figure prominently in this season's racing.

Sunday the boats of the club will run over to Sausalito to participate in the motor boat races, a full account of which will appear in next week's issue.



Club House of S. F. Y. C.

CALIFORNIA YACHT CLUB.

The opening jinks of the California Yacht Club were held last Sunday at the club house on Sheep Island. Owing to the exceptionally fine weather there was a large attendance and the affair was a thoroughly enjoyable one. There were many visitors aboard the yachts of the club and all who attended pronounced the affair a decided success.

THE CORINTHIAN OPENING.

Needless to say, the opening of the Corinthian Yacht Club last Saturday was a huge success. The day was perfect and the club house was taxed to its utmost capacity with one of the largest crowds ever assembled to partake of Corinthian hospitality and start the merry tars off for a season's voyage.

The afternoon's program was a most delightful one and was thoroughly enjoyed by the yachtsmen and their visitors, particularly by those of the fair sex and the

small boats and launches belonging to the club were kept busy throughout the afternoon carrying enthusiastic visitors from yacht to yacht.

The steam yacht Lucera and Captain Oliver's Bonnie Doon moored off the club house during the afternoon and were the center of much interest. The schooner Marian was also present in gala attire and received many visitors aboard.

After the departure of the visitors on the 5:30 ferry the members of the club donned their sea togs and sat down to the usual bean and chowder feast prepared by Capt. Keefe and his able assistants, finishing the evening



Club House of C. Y. C., Which Will Be Torn Down and Replaced by a \$20,000 Structure.

with one of the best jinks programs ever pulled off at the club house. Capt. Jack O'Brien has a reputation as a producer of talent and that he lived up to it last Saturday can be vouched for by everyone who was fortunate enough to be present.

On Sunday at 11 a. m. Commodore Stone gave the signal for the yachts to get under way for the opening cruise. There were many visitors aboard the boats and as there was a splendid sailing breeze the day was hugely enjoyed by all hands, and it was with great reluctance that the yachts were tied up at their moorings late in the afternoon.

The schooner Magic has again changed hands, having been purchased by John Norby, steward of the Corinthian Club. Mr. Norby will have her entirely rebuilt.

The sloop Mischief is on Klarman's ways undergoing repairs.

Mr. Schwerin's 25-foot launch, which has been building in Klarman's slip at Tiburon, is now nearing completion and will be launched early next week. She is equipped with a 5 horsepower Standard engine.

Mr. Gordon Blanding's fast motor yacht Chipmunk has been thoroughly overhauled at the shop of John Twigg & Sons and will be in commission in time for the opening of the S. F. Y. C. in which club she is enrolled.

Mr. J. V. Coleman of the S. F. Y. C. has recently had a power tender built for his yacht.

Holt and Gray's Konocti will meet Mitchell & Klune's General II at Sausalito Sunday, May 9th, in the first of a series of races for the Pacific Coast championship. The race will be over a straightaway course from Sausalito to Southampton shoals and back.

AQUATIC EVENTS AT ALASKA-YUKON-PACIFIC EXPOSITION.

The announcement of the motor boat and yachting regatta to take place at the Exposition has just been made and judging from the number of scheduled events it will be the greatest aquatic show ever witnessed on the Pacific Coast.

This will take place in July during the Alaska-Yukon-Pacific Exposition under the auspices and rules of the Pacific International Power Boat Association and the N. W. I. Y. R. A. and will be the first international combined motor boat and sailing regatta ever held on the Pacific Coast.

The preparations are directly in charge of the Elliott Bay Y. C. of Seattle, the racing committee of the P. I. P. B. A., and the Motor Boat Club of Seattle, and the motor boat committee of the A.-Y.-P. Exposition.

The events include a 225-mile cruising race from Vancouver, B. C., to Seattle, through the most beautiful cruising ground in the world. This starts June 29th and is open to any recognized yacht or motor boat club.

A special committee on entertainment has been elected by the combined clubs and will endeavor to provide something of interest for each day of the regatta. Junkets and amusements of varied kinds will be offered. The club houses and anchorage of the Elliott B. Y. C. and the M. B. C. of Seattle will be thrown open to visiting yachtsmen. Special rates of transportation and freight will be available. Rowing and canoe events will take place at the same time.

ALASKA-YUKON-PACIFIC EXPOSITION SPEED RACES.

Including Ten-Metre Class for World's Championship.

The program of motor boat events to be held on Lake Washington from July 3rd to 10th, under the auspices of the Pacific International Power Boat Association and the Motor Boat Club of Seattle, are as follows:

First event, 40 feet, 30 miles; second event, 32 feet, 30 miles; third event, 26 feet, 20 miles; fourth event, 22 feet, 10 miles; fifth event, 18 feet, 10 miles; sixth event, hydroplane; seventh event, long distance, 66 miles around island; eighth event, handicap, all contestants in previous races, 20 miles. Special—Backward; tug-of-war; boats built by boys under 17 years; class M sweepstakes, over 40 feet.

Probable Dates.

Saturday, July 3, 1909—First heat, 40 feet (12 metre), free for all, 20 miles; first heat, 32 feet (10 metre), 30 miles; first heat 26 feet, 20 miles; first heat, 18 feet, 10 miles.

Tuesday, July 6, 1909—Second heat, 40 feet (12 metre), 30 miles; second heat, 32 feet (10 metre), 30 miles; first heat, 22 feet, 10 miles; second heat, 18 feet, 10 miles.

Wednesday, July 7, 1909—Second heat, 26 feet, free for all, 20 miles; second heat, 22 feet, free for all, 10 miles. Special—Hydroplanes.

Thursday, July 8, 1909—Third heat, 40 feet (12 metre), free for all, 30 miles; third heat, 32 feet (10 metre), free for all, 30 miles; third heat, 18 feet, 10 miles. Special—Backward race; obstacle race.

Friday, July 9, 1909—Third heat, 22 feet, 10 miles; third heat, 26 feet, 20 miles. Special—Tug-of-war; boats built by boys under 17 years of age.

Saturday, July 10, 1909—Handicap for all former contestants. Twenty miles single heat. Time allowance taken from previous record. Any unfinished races not completed on above days. Class M sweepstakes.

Notes.

This program will be held in conjunction with the 225-mile long distance race and cruises of the P. I. P. B. A. and the annual regatta of the Northwestern International Yacht Racing Association, making the most spectacular series of yachting events ever promoted on the Pacific Coast.

All contestants must be members of recognized yacht or motor boat clubs.

No owner can enter more than one boat in any one event.

All entries must comply as to type with the specifications of the Pacific International Power Boat Association, which are similar to those of the A. P. B. A.

No boat while racing shall carry less than two people.

The course for the big classes will be thirty miles; for the eight-metre class, twenty miles, and for the smaller classes, ten miles, best two out of three.

All races will start and finish in front of a specially erected grandstand inside the exposition grounds.

The prizes for the ten and twenty metre classes will be \$500 cups. Other events will have suitable prizes.

The class races will be run, boat for boat, without restriction except as to type. Handicap races will be started on the basis of actual performance with 3 per cent disqualification limit.

For further information address C. W. Chandler, secretary A.-Y.-P. motor boat committee, 321 First Avenue South, Seattle.

LONG DISTANCE RACE FOR CRUISING POWER BOATS.

June 29, 1909, Vancouver, B. C., to Seattle, Wash.

Start—June 29th at 8 o'clock a. m., or such time as the racing committee may consider best.

Restrictions—The race is for cruising boats of not less than 30 feet over all, divided into four classes:

Class A, over 60 feet.

Class B, over 50 feet and not over 60 feet.

Class C, over 40 feet and not over 50 feet.

Class D, over 30 feet and not over 40 feet.

A cruising boat is one built and used for cruising and must have accommodations for sleeping and eating for a crew of not less than four.

Special Class—A special class made up of cruising power boats which can not comply with the restrictions placed upon the four regular classes will be measured and started upon their handicaps for a suitable trophy or cup. Such boats shall not be eligible, however, to compete for the "Rudder" exposition cup or other trophies.

Propelling Power—An explosive engine or engines operated by either gasoline, kerosene, benzine, distillate or alcohol.

Crew—The crew shall not be changed during the race. It must consist of not less than four persons, two of whom may be paid hands. In the event of the owner not being on board during the race, he must be represented by a member of the Pacific International Power Boat Association, and any member of any recognized yacht club and in good standing is eligible to such membership. No professional navigators or pilots will be allowed on any boat, and each owner or his representative must, if requested, deliver to the committee before the start of the race a list giving the names and vocations of all the members of his crew.

Equipment—Boats may carry an optional amount of fuel, all of which must be in fixed tank or tanks permanently piped and connected. Temporary tanks placed in the boat will not make her eligible for the race. Each boat must carry on deck, or tow, a tender, must carry two anchors and cables, side and other lights required by the Federal regulations, a life-preserver for each member of the crew, compass, charts, lead line, buckets, and at least two fire extinguishers. Lights to be displayed at all times in full view as per requirements of the Federal Government, and any person not so displaying same is liable to disqualification.

Rating and Allowance—Minimum beam to be determined by the following formula:

$$B = 20 L \div (60 + L) = \frac{20 L}{60 + L}$$

in which B is beam on water line and L is length on load water line. This formula is based on a maximum ratio of water line length to water line beam of

4.5 for 30 feet water line length.

5.0 for 40 feet water line length.

5.75 for 55 feet water line length.

6.75 for 75 feet water line length.

and ratios in proportion for intermediate lengths.

Racing measurements or rating on which time allowance is to be figured shall be determined by taking eighteen times the cube root of the square root of the load water line length multiplied by the horsepower and divided by the area of the midship section.

$$\text{RATING: } \frac{18 \sqrt[3]{\frac{LWL \times HP}{MS}}}{H.P. = \frac{D^2 \times S \times N \times R}{C}}$$

in which: D—Diameter of piston in inches. S—Stroke of piston

in inches. N—Number of cylinders. R—Number of revolutions.

C is a constant to vary for two and four cycle engines, as follows:

C—14,000 for four cycle.

12,500 for two cycle, two port.

11,500 for two cycle, three port.

Time allowance shall be based on ratings of Pacific International Power Boat Association, which correspond to 80 per cent of the time allowance in the tables of American Power Boat Association.

In addition, each owner may be required to run his boat at full speed under the observation of a neutral expert over any measured course agreeable to the measurers. The result of these trials will be used by committee as a basis of comparison in the application of handicaps by measurement.

Measurements—Measurements will be made by disinterested persons or person appointed by the racing committee, which will issue to each boat so measured a certificate. Boats without certificates must be at Vancouver, B. C., ready for measurement before 9 a. m. June 27, 1909. Measurements will be posted at the landing of the Royal Vancouver Yacht Club as soon after that hour as practicable, and all protests as to eligibility and rating must be lodged with the racing committee before the start. If requested, any owner or his representative shall be required to furnish a certificate stating that no changes to hull, propeller or machinery have been made after the boat has been measured. F. S. Brinton and W. H. MacDougall, of Seattle and Vancouver, respectively, are the appointed measurers, and certificates must be issued by them.

Course—The course to be as follows: Starting from a stake boat in English Bay, Vancouver, across the Gulf of Georgia, through Active Pass, Haro Straits, Swanson Channel, leaving Discovery Light (off Victoria) to starboard; thence around stake boat in Port Angeles Bay; thence south by Point Wilson, up Puget Sound through Colvos Passage, on the west side of Vashon Island, to and around a stake boat in Commencement Bay at Tacoma; thence north on the east side of Vashon Island, around Alki Point, Duwamish Head, and finishing in front of the Elliott Bay Yacht Club house in West Seattle. All stake boats will be clearly designated during the day by a red ball or disk and the colors of the Pacific International Power Boat Association, and at night by vertical lights, red-white, blue-white. All stake boats must be left to port.

Fuel—Energine, picric acid, ether or any other ingredient to increase the power of the fuel will not be allowed.

Protests—Protests must be made in writing within forty-eight hours after the first boat finishes.

Boats Carrying Sails—Boats carrying sails of any description must have them sealed by the committee before the start, and the sails must be intact at the finish of the race.

Entrance and Entrance Fee—All boats must be measured and rated before starting. No unrated boat will be allowed to start, and entries must be made in writing before June 15, 1909, and no entry after that date will be received. Full description of the boat should be sent with the entry upon application blanks enclosed. All entries will be subject to inspection by the committee, while an entrance fee of \$10 to cover the cost of measuring must accompany application for entry. Checks to be made payable to H. W. Starrett, treasurer Pacific International Power Boat Association, 809 Railroad Avenue, Seattle. Entry blanks accompany these conditions, or can be had on application for entry blanks or any further information by addressing Frank M. Froulser, secretary, 1303 Seneca Street, Seattle.

Rejections and Alterations—The committee reserves the right to reject any entry if, in their judgment, the boat is not a bona fide, seaworthy cruising craft, or to make any such minor alterations in the conditions as may be deemed advisable, providing such alterations do not conflict with the spirit of the rulings.

Prizes—The prize for the boat finishing first under rating and allowance will be a suitable silver cup. A \$500 perpetual challenge cup offered by Thomas Fleming Day, of "The Rudder," which is to be known as the "Exposition Cup," goes to this same boat, and is to be held by the winner for one year.

In addition there will be a cup given for the winner in each of the regular classes, and an extra prize will be offered for the winner of the special non-restricted class. There will also be a prize for the best actual time made over the course in any of the four regular classes. All winners will receive association prize flags.

Custom House Regulations—All custom house regulations may have to be strictly complied with. We advise all contestants who enter to thoroughly inform themselves regarding this matter.

Note—If sufficient cruisers from 25 to 30 feet L. W. L. petition for a race, a cup will be offered for such a race, starting from Vancouver on June 29th, but covering a shorter, more protected course.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

OFFICE OF U. S. LIGHTHOUSE INSPECTOR, TWELFTH DISTRICT.

Notice to Mariners, San Pablo Bay, Cal. (List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 30)—Notice is hereby given that San Pablo Bay Buoy No. 1, marking the end of the shoal off Mare Island, San Pablo Bay, California, is reported almost submerged. It will be replaced as soon as practicable.

By order of the Lighthouse Board.

W. G. MILLER,
Commander U. S. N.,
Inspector Twelfth Lighthouse District.

Captain O'Brien of the S. S. Northwestern reports to the Branch Hydrographic Office at Port Townsend that on April 20, 1909, in latitude N. 59 deg. 52 min., longitude W. 144 deg. 48 min., he passed a large fender pile, 40 feet long and floating well up in the water.

Also that he met ice three miles off Cape Spencer in large quantities, and that the ice in Icy Strait was exceedingly thick. The passage to the northward of Lemesurier Island was entirely blocked.

J. C. BURNETT,
Lieut., U. S. N., in charge.

On and after May 1, the time ball will be dropped from a staff on the northeast corner of the roof of the Fairmont Hotel, and the one on the Ferry Building will be discontinued.

J. C. BURNETT,
Lieut., U. S. N., in charge.

CIVIL SERVICE EXAMINATIONS.

The United States Board of Labor Employment for the Twelfth Civil Service District announces that an examination for the grade of Four-Line Teamster at \$40 per month, and ration, will be held in San Francisco, Cal., on May 26, 1909.

No educational tests are required for this examination, but applicants must furnish a medical certificate to show that they are in good physical condition.

Applicants must also prove that they have had practical experience as a Four-Line Teamster.

Age limits are from 20 to 60 years.

For application blanks and further information concerning this examination, apply to Room 241, Postoffice Building, or address Secretary, Twelfth Civil Service District, San Francisco, Cal.

The United States Board of Labor Employment for the Twelfth Civil Service District announces that an examination will be held on May 26, 1909, for the position of Deckhand on the Government boats under the Quartermaster's Department, in the Harbor of San Francisco. This position pays \$65 per month.

Applicants are required to have had experience as seaman or deckhand. Considerable difficulty has been experienced in securing a sufficient number of qualified applicants for this examination. No educational tests are required, but applicants must be in good physical condition and must be between the ages of 20 and 60 years.

For application blanks and further information concerning this examination, address Secretary Twelfth Civil Service District, or apply at Room 241, Postoffice Building, San Francisco, Cal.

The United States Civil Service Commission announces that the following examinations will be held in San Francisco, Cal., in the near future:

Coin Counter, Subtreasury Service, San Francisco, Cal.—For this position applicants must prove three years' experience as cashier, assistant cashier, teller, or in some position the duties of which are the handling of money and its representatives for banking or other business institutions.

Mechanician, Weather Bureau, at Mt. Weather, Va.
Skilled Laborer (male), Bureau of Animal Industry, Poultry Plant, Bethesda, Md.

For application blanks and further information concerning these examinations, address the Secretary, Twelfth Civil Service District, Room 241, Postoffice Building, San Francisco, Cal., indicating the position interested in.

The light on Wailangilala island, Nanuku passage, Fiji islands, will be replaced by a white light, visible all around the horizon for a distance of eight miles, from May 1, 1909, to June 1, 1909.

Buoy No. 1, on Browns spit, Grays harbor, went adrift April 7, 1909.

Beacon No. 8, between Hoquiam and Grays Harbor City, is gone.

TIDE TABLE TO WEEK ENDING SATURDAY, JUNE 5. Golden Gate Entrance to San Francisco Bay.

M A Y

Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
S	Fri.	7	6:40	-0.2	14:04	4.5	18:35	3.2	19:12	3.3
	Sat.	8	0:02	5.6	7:26	-0.3	15:04	4.6	20:15	3.5
	Sun.	9	0:32	5.5	8:14	-0.3	16:08	4.6	21:20	3.7
	Mon.	10	1:13	5.3	9:08	-0.2	17:10	4.7	22:40	3.5
3rd. quar.	Tues.	11	2:10	5.1	10:05	-0.1	18:05	4.7	23:15	3.5
	Wed.	12	3:35	4.7	11:02	0.1	18:50	5.0		
	Thur.	13	0:00	3.2	5:26	4.5	12:02	0.4	19:30	5.2
	Fri.	14	1:06	2.5	6:58	4.6	13:08	0.7	20:04	5.4
E	Sat.	15	2:03	1.8	8:10	4.7	14:00	1.0	20:40	5.6
	Sun.	16	2:55	1.0	9:12	5.0	14:50	1.3	21:14	5.9
	Mon.	17	3:35	0.3	10:12	5.1	15:15	1.7	21:50	6.1
	Tues.	18	4:22	-0.3	11:14	5.0	16:20	2.0	22:25	6.3
New	Wed.	19	5:10	-0.7	12:14	5.0	17:04	2.4	23:04	6.3
	Thur.	20	6:00	-1.0	13:15	4.8	17:50	2.8	23:42	6.2
	Fri.	21	6:48	-1.1	14:16	4.6	18:38	3.2		
	Sat.	22	0:25	5.9	7:40	-0.9	15:20	4.6	19:30	3.4
N	Sun.	23	1:10	5.7	8:27	-0.7	16:20	4.7	20:32	3.6
	Mon.	24	1:54	5.2	9:20	-0.3	17:18	4.7	21:08	3.9
	Tues.	25	3:00	4.7	10:10	0.1	18:08	4.9	23:15	3.6
	Wed.	26	4:20	4.2	11:00	0.5	18:50	5.2		
1st. quar.	Thur.	27	0:34	3.2	5:45	4.1	11:50	0.9	19:22	5.3
	Fri.	28	1:30	2.7	6:58	4.0	12:45	1.2	19:54	5.6
	Sat.	29	2:10	2.1	8:00	4.0	13:28	1.5	20:22	5.4
	Sun.	30	2:45	1.6	9:00	4.1	14:08	0.8	20:45	5.5
A	Mon.	31	3:10	1.1	9:48	4.3	14:45	2.1	21:06	5.6
	Tues.	1	3:45	0.5	10:38	4.4	15:25	2.3	21:30	5.7
	Wed.	2	4:22	0.0	11:25	4.4	16:05	2.6	22:00	5.9
	Thur.	3	5:00	-0.5	12:15	4.5	16:45	3.0	22:44	5.9
Full	Fri.	4	5:44	-0.8	13:06	4.5	17:25	3.2	23:05	6.0
	Sat.	5	6:25	-0.9	14:00	4.5	18:14	3.3	23:40	5.9

J U N E

S	Tues.	1	3:45	0.5	10:38	4.4	15:25	2.3	21:30	5.7
	Wed.	2	4:22	0.0	11:25	4.4	16:05	2.6	22:00	5.9
	Thur.	3	5:00	-0.5	12:15	4.5	16:45	3.0	22:44	5.9
	Fri.	4	5:44	-0.8	13:06	4.5	17:25	3.2	23:05	6.0

Time used, Pacific Standard, 120th Meridian W.
0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	18	May 1	13 ft. at L. W. in channel to Hoquiam and Aberdeen.
Willapa Bay	27	Apr. 1	Depth at M L W in channel at Raymond 15 feet.
Columbia River	24	Feb. 6	
Nehalem River	9	Apr. 30	Channel is 300 ft. south of buoy.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	13	Mar. 12	Channel not changed.
Siuslaw River	8 1/2	Apr. 15	Channel gone to north end of jetty and beacon on high bank marks channel now.
Umpqua River	12	May 1	Channel is in good condition.
Coos Bay	17	May 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	9	Mar. 26	2 buoys gone; channel in middle between jetties.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	8	Apr. 2	At present channel is southwest.
Humboldt Bay	18	Apr. 1	North channel 18 ft; very narrow and crooked, difficult to navigate for large vessels; about 13 feet in south channel.
San Pedro Bay	19	Apr. 30	No change in channel.
San Diego Bay	25	May 3	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

The accompanying picture is of the twin-screw tugboat Olga, being loaded on the ship San Salvador, to be shipped to Alaska. The Olga was built by William Cryer for the fisheries of Alaska and was necessarily built very heavy to withstand the severe conditions. The Olga is 45 feet long, 12 feet beam, 5 feet 6 inches deep and has 23 inches



OLGA.

of freeboard at the lowest point of the sheer. She is propelled by twin gas engines, showing on the test stand 34.8 horsepower at 350 R. P. M., with a corresponding fuel consumption of .1 of a gallon per horsepower per hour. The boat makes a speed of 9.94 miles per hour, which exceeded the expectations of the owners.

STANDARD SUPPLIES FOR THE ISTHMIAN CANAL FOR 1910.

The first bids for supplies of standard articles to be used in the Canal work during the year ending June 30, 1910, were opened on April 18, in the office of the General Purchasing Agent at Washington. These bids were for steel and articles made of steel, and they are to be followed at short intervals by bids for supplies of articles made entirely or partly of rubber, paints, oils and other articles that have become standard in the Canal work.

This method of contracting for standard supplies for a year is the same as that followed in other branches of the Government service and in large business establishments. Until recently it was not practicable to put it into effect in the Canal work, because it is only by experience that a conclusion can be reached as to what articles are standard and what quantities of each are needed. It was first proposed to ask for bids for a six months' supply, or for the period between January 1 and June 30, 1909, but the task of compiling the schedules was so great that advertisement could not be made before January 1, and the method of making separate contracts for supplies as they are needed will therefore be continued until the beginning of the next fiscal year.

The new method is to place a contract for one class of articles with a qualified bidder on the condition that he will supply all of that article needed in the fiscal year at a fixed price. Over eight thousand articles are required, and these have been grouped into a convenient number of classes. For instance, the schedules for material made wholly or partly of rubber includes twenty-eight classes, on any one of which a bid will be received. Each class is composed of a number of separate articles. Class 1 of this article is made up of four items, each

CLASSIFIED ADVERTISEMENTS

SHIPBUILDING AND ENGINEERING.

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The acceptance of any supplies is contingent on their passing inspection in the States, and in some cases certain articles must stand the additional test of use for a certain period on the Isthmus.

(Canal Record, April 14, 1909.)

A Chinese and Siamese steamship company has been formed, to run merchant steamers between Siam, Singapore, Hongkong, China and other foreign countries. The company will first run river and coasting steamers, but later will operate trans-pacific lines of the type of the Japanese subsidized steamers.

The company was formed under the auspices of the Seventy-two Guides of Canton, with a capital of \$1,500,000.

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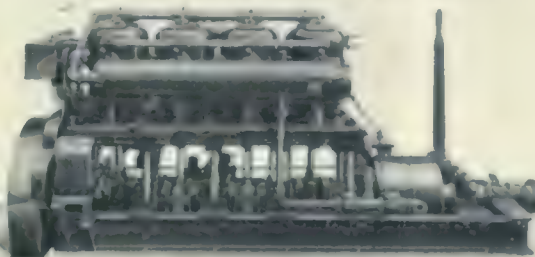
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PACIFIC MERCHANT MARINE

VOL. II

SATURDAY, MAY 15, 1909

NO. 9

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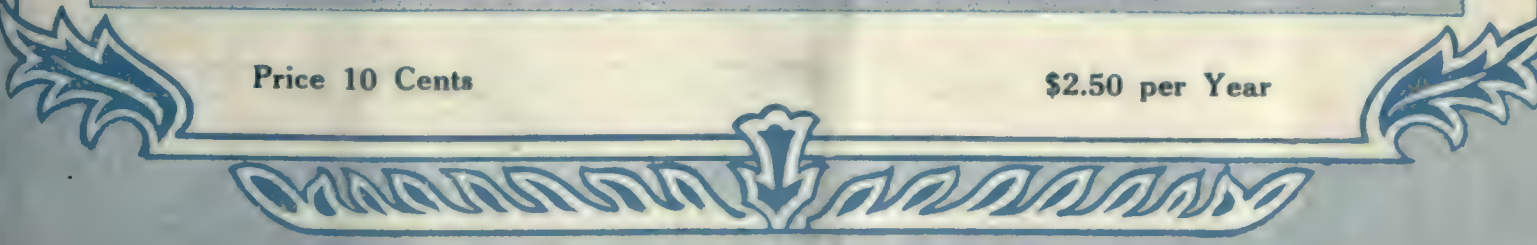
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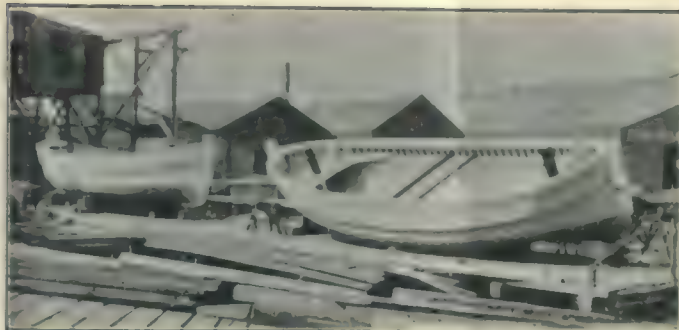
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Volume II

SATURDAY, MAY 15, 1909

Number 9

AMERICAN SHIPPING

By ALEXANDER R. SMITH

(CONTINUED)

German Manufacturers Have Subsidized German Producers.

Such a suggestion as has last been made is by no means unique, nor is it unheard of or untried. For quite a number of years certain powerful German manufacturing syndicates have paid large bounties on exports of manufactures, to the great advantage of German manufacturers and the German people. More recently, this policy has been discontinued, not because it did not operate successfully, but because it had operated so successfully as to be no longer necessary for the encouragement of the manufacturers nor for the advancement of the trade which it had previously stimulated. Our consular reports have, from time to time, made reference to this practice in Germany, they have instanced the details of its operation, and have testified to its success. The matter seems to be worthy, at this time, of the consideration of American manufacturers of steel and iron, of our shipowners and our shipbuilders. Such an announcement of a bounty on the American construction of steel ships, if made by the steel and iron manufacturers, at this time, might stimulate Congress to at once enact the pending shipping bill, and a great and prolonged and most prosperous revival of American shipbuilding for our foreign trade be inaugurated.

Shipowners and Shipbuilders Cannot Alter Conditions.

What are the shipowners of the United States to do? They cannot be expected to invest their capital in an unprofitable industry, in ships the cost of constructing and the cost of operating which, in competition with foreign ships, make a profit prohibitive. Should our shipowners and our shipbuilders themselves advocate free ships—which there is little likelihood that they could be induced to do—it is doubtful if Congress would grant it, after more than a century of prohibition. This is especially true at this time, when so many of our great industries that have been built up under our highly protective conditions are so prosperous, and when the remnant of our shipping in the foreign trade is profitless because of the free trade competition to which it is subjected. Ships can not be built nor operated as cheaply under our flag as they can be built and operated under foreign flags—industrial and social conditions in this country, adjusted as they are to our highly protective system, forbid such a lowering of cost. The shipowners are helpless. This is equally true of our shipbuilders. They can not build ships more cheaply than they do now. Profits are meager in shipbuilding. None of the great modern American shipbuilding plants yield a profit to their owners. Many have been "reorganized" only by squeezing out the original owners; others have been bankrupted, and still others hover, today, upon the verge of reorganization or bankruptcy. Were it possible, as the free trade opposition press alleges, to build ships in this country as cheaply as they can be built abroad, is it to be supposed that foreign capital, foreign management, and foreign skill would not establish and

operate great shipbuilding plants here, earning large profits and reducing the prices now paid?

True Causes of American Helplessness.

Secretary of State Root in his recent Kansas City speech said:

"The higher wages and the greater cost of maintenance of American officers and crews make it impossible to compete on equal terms with foreign ships. The scale of living and the scale of pay of American sailors is fixed by the standard of wages and of living in the United States, and those are maintained at a high level by the protective tariff."

Influence Exerted by Our Prohibitively Protected Domestic Shipping.

Through laws passed in 1817, all vessels engaged in our domestic trade must be American-built and American-owned. The tonnage of the vessels in our domestic trade is five times greater than that in our foreign trade. The rates of wages paid in our shipyards for the construction of vessels that, in our domestic trade, are prohibitively protected against the competition of foreign-built ships, are at the rates of wages paid for the building of ships for our foreign trade. The rates of pay on board of our ships are all far higher than obtain in any other part of the world, rendering competition by American-built ships with foreign-built ships impossible at a profit. The owners and builders of ships for our foreign trade are helpless—absolutely helpless—so far as altering these conditions, which they have not fixed, and which they must submit to.

How Can Owners and Builders Help Themselves?

Secretary of State Root said further, on this subject:

"We are living in a world not of natural competition, but of subsidized competition. State aid to steamship lines is as much a part of the commercial system of our day as state employment of consuls to promote business."

He had previously said: "It is estimated that about \$28,000,000 a year are paid by our commercial competitors to their steamship lines," in subsidies, construction and navigation bounties, and other aids. He also said:

"It will be observed that both of these disadvantages under which the American shipowner labors are artificial; they are created by governmental action, one by our own Government in raising the standard of wages and living, by the protective tariff, the other by foreign governments in paying subsidies to their ships for the promotion of their own trade. For the American shipowner it is not a contest of intelligence, skill, industry and thrift against similar qualities in his competitors; it is a contest against his competitors and his competitors' governments and his own Government also."

The Government Should Remedy Conditions of Its Own Creation.

These are truthful words; their meaning is as clear as crystal—they explain, honestly, just what the difficulties are. He adds:

"Plainly these disadvantages created by governmental action can only be neutralized by governmental action, and should be neutralized by such action."

Government Should Give Back What It Has Taken Away.

Mr. Root says that "we cannot repeal the protective tariff; no political party dreams of repealing it; we do not wish to lower the standard of American living or American wages. **WE SHOULD GIVE BACK TO THE SHIPOWNER WHAT WE HAVE TAKEN AWAY FROM HIM FOR THE PURPOSE OF MAINTAINING THAT STANDARD; AND UNLESS WE DO GIVE IT BACK WE SHALL CONTINUE TO GO WITHOUT SHIPS.**"

Will Republicans Do Their Plain Duty?

If Mr. Root is accurate—and who can gainsay what he says?—has he not proven that the shipowners and the shipbuilders in this country are helpless in the grasp of conditions which they did not create and which they may not alter? For forty-four of the past forty-six years Republicans, who are responsible for these conditions which are thus authoritatively declared immediately irremediable or unalterable, have either had control of the legislative or the executive branches of the Government, and were thus in a position to thwart any effort to change these economic, industrial and social conditions. During all of that time our shipping in the foreign trade has gone down, down, down; it has been unprotected, and it has been profitless. Republicans have promised, over and over again, to remedy these conditions. So far, they have failed to do so. Unless remedied by adequate protection relief is impossible. Republicans, when put to the test, seem unwilling or afraid to redeem their promises to American shipping. Why? Are the intrenched foreign shipping interests, that now earn \$200,000,000 a year in our foreign carrying, their friends, their advocates, their agents in this country so powerful, and is the sense of justice so dulled in our legislative minds, and is the feeling of shame so absent, that relief will not be granted? Must the need of an American merchant marine upon the seas be emphasized by fearful and irremediable losses of blood and treasure, by disaster and humiliation, before the American people will compel a reluctant Congress to give the American ship upon the seas a square deal—protection against its foreign competitors equal to the protection accorded to such of our land products as are subject to foreign competition—not for the benefit and enrichment of the American shipowner and shipbuilder, but for the promotion of our foreign commerce, and for the safety and protection of the Nation in time of need?

PROGRESS OF THE PANAMA CANAL.

Throughout the dry season the Cucaracha slide has been moving perceptibly, but two steam shovels have been able to excavate the material as it moved towards the cut and, additionally, have been able to push back the line of encroachment. On April 9 a portion of the bank in the slide in which one of the shovels was working fell of its own weight, and a few days later more material fell onto the steam shovel berm. Work was interfered with only temporarily, and the berm on which the steam shovels are working was cleared in a few days. The material that fell was all within the canal prism, and in the long run the break will be an advantage, as it will facilitate excavation.

The electrical subdivision of the mechanical division is working on an electric light pole line, to connect Cris-

tobal and Colon with the large power generating plant in process of erection at Gatun. This will be a permanent plant, and when in operation will permit of the discontinuance of the electrical generating plants now in Colon and Cristobal, as the Gatun plant will furnish, in addition to the current required there, all the current necessary for the use of the Isthmian Canal Commission and the Panama railroad in Colon and Cristobal.

A storehouse for cereals and miscellaneous supplies will be built for the subsistence department at Cristobal, just south of the bakery, near Dock 11, and alongside one of the railroad tracks that run to the dock. It will be 200 feet long, 50 feet wide and two stories high. The first story will be built of concrete blocks and the floor will also be of concrete. The second story will be of frame construction. In addition to the storage space, it will contain a coffee roasting plant and the packing office.

About 2,500 barrels of flour are used each month in the bakery and sold at the commissaries, and it is proposed to keep in store at all times at least 1,000 barrels. Next to flour, rice is used in the greatest quantity. Two grades of rice are used in the hotels and messes and sold in the commissaries. The first is Carolina rice and the second is known as *Rangoon rice. Carolina rice is used principally in the hotels and sold to Americans. It is polished and looks more tempting than the Rangoon rice. The latter grade is not polished, and therefore retains the nutriment found in the outer skin of the grain. The West Indian laborers will not eat rice from which the skin has been removed. Twenty barrels of Carolina rice are used monthly and about 100 tons of the Rangoon. The Carolina rice is purchased in the United States and the Rangoon through an agency at Hamburg, Germany.

Beans and peas also form a large factor. About 125 barrels of split peas, 40 barrels of dried green peas, 60 barrels of red kidney beans, 40 barrels of Lima beans and 60 barrels of white navy beans are used monthly. About 50 barrels of corn meal are sold, and in addition the subsistence department disposes of 50 cases of 50 pounds to the case of corn meal, 40 cases of hominy and 410 cases of other cereals. The new storehouse will also be used for supplies of salt, sugar and vinegar. About 900 barrels of sugar, 500 barrels of salt and 50 barrels of vinegar are used each month.

During the month of March, 1909, the sixteen post-offices in the Canal Zone in which money order business is done, sold 16,084 money orders, aggregating \$444,694.16, an increase of \$28,544.35 over the amount reported for February. Of the \$444,694.16 in March, \$322,779.62 was drawn in orders payable in the United States and elsewhere and \$121,914.54 in orders payable in the Canal Zone. The fees collected amounted to \$1,892.47, and the amount paid and repaid was \$124,470.55.

Enough bananas are still raised on the Isthmus to supply the subsistence department with between 300 and 400 bunches each week, although many believe that the banana industry had been wiped out; much greater quantities could be obtained if desired. Bananas, however, are about the only produce grown in Panama purchased by the subsistence department. Oranges served in the hotels and sold in the commissary come principally from Jamaica, sweet potatoes from Barbados and yams and avocados from Jamaica. Fresh fish sold in the Panama Railroad commissaries and served in the commissary hotels and messes is purchased from a merchant in

*Rangoon, capital of Lower Burma, on Rangoon river, the eastern delta stream of the Irrawadi.

†Burma, an important adjunct of the British Indian Empire.

the city of Panama, and about 4,500 pounds are used each week. The fish are caught in Panama Bay by native fishermen every morning and are delivered to the contractor on the morning they are taken. Ice for the fish packing is furnished by the subsistence department.

At Miraflores the mechanical division is erecting a 225,000 gallon tank for the storage of oil for fuel in the electrical plant that will supply power for the construction of the locks at Pedro Miguel and Miraflores. The riveting work will be done by pneumatic machinery. The pipe line which now runs from Miraflores to Matachui, and which is used for the purpose of furnishing compressed air for operating all sorts of machinery, including the many drills in Culebra cut, has recently been considerably extended. That portion of it between Paraiso and Bas Obispo consists of 10-inch double strength. The line carries a pressure of 100 pounds.

During the month of March there were used in the Canal Zone 488.78 tons of explosives, 29.06 miles of track and 3,111 feet of sewers laid.

THE JAPANESE CRUISERS ASO AND SOYA.

The Japanese war vessels have come and gone from San Francisco. Before leaving the harbor Admiral Ijichi gave out the following for publication:

"To the people of San Francisco—The cordial welcome and hospitality which have been extended to me and the officers, cadets and men of my command, while in the harbor of San Francisco have been extremely gratifying to us and far in excess of our anticipation. It is needless to say that we are very grateful.

"It is my conviction that these demonstrations of good will bear convincing evidence of the existence of a perfect understanding between the two countries, and I earnestly hope that occasions for the display of this spirit may often arise.

"On the eve of my departure it is my wish to sincerely thank the representatives of the Federal, State and city governments, the commercial organizations of San Francisco, and all the good people who have wrought together to make our stay so pleasant, and to assure them of my heartfelt gratitude as I bid them farewell.

"H. IJICHI,

"Rear Admiral in command of His Imperial Japanese Majesty's Training Squadron."

This letter reflects the true sentiment of a California

of the Russo-Japanese war, when the Russian Baltic squadron was destroyed in the sea of Japan. The Soya, the former Varyag, a cruiser built by the Cramps at Philadelphia for Russia, undertook to face a whole Japanese squadron at the immediate opening of the war. She was lying at anchor with the Koriets at Chemulpo, when Admiral Togo went on board the Mikasa at Sasebo and ordered the fleet north, flying the signal, "The enemy of the emperor flies the flag of Russia; attack and destroy." Admiral Uriu's squadron of five cruisers, of which the Asama was the flagship, was detached to go after the cruisers at Chemulpo, and they surprised the Russian seamen. The Japanese fleet suddenly loomed up in the offing and sent a message that if the Russian ships did not come and surrender within a given time, they would enter and sink them at anchorage. The British commander of the Talbot, and the United States commander of the Vicksburg, advised the Russian captain of the Varyag against going out, they maintaining that the threat of Admiral Uriu was a violation of international law.

Nevertheless the two Russian ships prepared for sea and fought at overwhelming odds. The Japanese ships poured a hail of shot and shell in upon them while the residents of the Korean port sought vantage points to watch the naval battle. Thirty-five minutes after they went out the Varyag and Koriets returned, disabled, and the hulks were blown up by the remnants of their crews. The foreign vessels in the harbor sent surgeons, nurses and appliances to care for the wounded Russians.

After the war many futile attempts were made by the Japanese to raise the Varyag, and in 1895 Admiral Arai finally succeeded in doing so, and removing her to the naval yards at Yokosuka, where repairs to the vessel



ASO, 7,800 tons (BAYAN).



SOYA, 6,500 tons (VARYAG).

welcome and hospitality, and during their stay in American waters Japan may rest assured that the reception of the Aso and Soya in San Francisco was but an introduction to American respect for any and all enterprising nations of the world.

The two cruisers have been prominently before the public for several years, commencing with the opening

exceeded her first cost of building. Sentiment, however, was the element of restoring the two Russian vessels.

The Aso, formerly the Russian warship Bayan, had been closely watched during the war and when opportunity offered was the main target of the Japanese vessels. Under command of Rear Admiral Wiren of the Russian navy, the Bayan succeeded in doing much damage to the Japanese navy. Unaided the Bayan laid a line of contact mines over the cruising ground at Port Arthur, which resulted in the destruction of the Japanese battleships Hatsuse and Yashima and the cruiser Yoshino. At the fall of Port Arthur the Bayan was sunk by the Russians, but was easily raised and added to the Japanese navy.

The Aso entered the harbor as the flagship of Admiral H. Ijichi and staff. In all 180 cadets are carried, including two bands. During their stay in the harbor the officers and cadets enjoyed their full measure of sight-seeing and entertainment. Officers and men displayed

all the characteristics of the studious Japanese, observing and curious, inquisitive and gentlemanly to a marked degree, patronizing the street cars but very little, which may be also said of the merchant stores. Each cadet on shore leave was given a canteen of water and a small lunch; one of the latter, being brought to this office, was found to weigh two ounces, consisting of two-thirds boiled potatoes and one-third meat. The lunch evidently served the double purpose of assuring the men a lunch and avoiding the purchase of liquor or food. Much more could be said in favor of the general make-up and conduct of the little brown men to this city.

LOCAL NOTES.

A projecting plank from the end of the Key Route ferry slip, on the San Francisco side, tore through the port side of the ferryboat Fernwood Monday, May 10, for a distance of 25 feet and caused a mild panic when, from the force of the impact, the boat keeled over. The boat was not taken off the run, the necessary repairs being made by laying over two trips.

A subsidized French line will soon begin operating a regular schedule between Tahiti and San Francisco, and, in that case, the Spreckels liner Mariposa, which is operating on this run at the present time, will be withdrawn and put on the Honolulu run, operating alternately with the Alameda.

The repairs of installing a new boiler on the river steamer Weitchpec, on which, on March 11, low water and a dirty boiler caused the sagging of the crown sheet and pulling out of stay bolts, resulting in the death of a fireman, will be completed and the boat will be placed on her regular run on the river. The new boiler will add greatly to the speed of the boat.

Colonel Bellinger has issued orders to prepare the transport Buford for an emergency. The transport will be given a thorough overhauling and will be held in readiness for special duty.

Sacramento—The Farmers' Transportation Company has agreed to construct 112 feet of wharf on the water front immediately adjoining the south end of the present city wharf, and of the same design and dimensions as the present structure.

The 112 feet of wharf will bring the entire city structure to a length of 400 feet, and it will extend from the south line of M street to the south line of N street. The new section of wharf will bring the structure to within 12 feet of the Sacramento Transportation Company's wharf. It is probable that when the next tax levee is made a sufficient amount to purchase from the Farmers' Transportation Company the section of wharf it is to build will be included within the estimate.

A car float, which was built at Coos Bay for the Western Pacific Railroad Company, was towed to San Francisco Bay by the steamer Redondo. The barge, which is 287 feet long, will be used in ferrying freight cars between San Francisco and the Alameda side.

Rear-Admiral Sebree, in command of the second division of the United States Pacific fleet at present in San Francisco bay, received from Harbor Master Spaulding of Seattle a special chart of the harbor showing location of city buoys and Government cables, for use this summer in establishing the battleships sent to the exposition.

The State dredger and the tug Governor Markham have recovered practically all of the thousand tons of pig iron which fell into the bay when Howard street wharf No. 1 collapsed. The French bark Bretagne from which the iron was unloaded has discharged the rest of her cargo and is loading a cargo of scrap iron for Genoa.

Sacramento: City Harbor Master Blake turned into the city collector's office \$733 in harbor dues for the month

of April. He had previously turned in \$117, making the total for the month \$850. When the addition to the city wharf is completed, Blake says that the harbor dues will run over \$1,000 a month or about \$12,000 a year. A few years ago the harbor dues were less than \$1,000 a year. Not only has the river greatly increased, but the facilities offered at the city wharf have concentrated the business there and have encouraged shipping. The expenses of running the wharf are about \$300 a month, so that the city makes a good profit on its investment.

The Alaskan Steamship Company has sold the steamer Pennsylvania, a sister ship of the Indiana, which was wrecked at Point Tosca April 3 and is believed to be a total loss, to the Pacific Mail Steamship Company, for a consideration in the neighborhood of \$300,000. The Pennsylvania is about the same dimensions as the Indiana.

The navigation laws on the Sacramento and San Joaquin rivers cannot be enforced by Surveyor of Port Woodward's department, and he has appealed to Collector Stratton for a fast launch to make the offenders obey the law.

Barneson-Hibberd Company, who recently purchased the schooner Lizzie S. Sorenson, are fitting out the boat for a season of whaling from the Tyee whaling station, in Southeastern Alaska.

While lying at anchor in Guaymas, the schooner Bangor was run down by the schooner Minnie E. Cain and badly damaged. The spanker boom was carried away, four of the boats were destroyed and the port aftertrail ruined. The Minnie E. Cain, which was outward bound at the time, was not damaged and proceeded on her way.

Every precaution is being taken to prevent the wholesale smuggling of opium into this port. The baggage of passengers from American ports, and especially Honolulu, was formerly not molested, but since the order for the exercise of greater vigilance was received, all suspicious baggage of passengers is being searched. The new order will not, however, compel a search to be instituted in every piece of baggage from the islands, but the inspectors are instructed to watch for any suspicious bundles where opium may be concealed.

The testimony in the investigation to determine the cause of the loss of the Indiana, being heard before United States Inspectors of Hulls and Boilers, Messrs. Bolles and Bulger, was continued indefinitely on account of several of the important witnesses being detained at the wreck. The testimony so far taken did not develop anything specific, being confined to the actions of Captain Robinson before his death.

The American Association of Masters, Mates and Pilots have filed a complaint with Surveyor of the Port Woodward, which states that small vessels of more than five tons are constantly violating the navigation laws on the Sacramento and San Joaquin rivers.

The M. S. S. Enterprise sailed for Hilo on Sunday, May 2, with cargo valued at \$129,762.

The P. M. S. S. Mongolia sailed for Honolulu and ports in China and Japan. The liner's cargo amounted to 3,000 tons, which includes 2,500 bales of cotton for Japanese ports and 500 sacks of malt for Hong Kong.

The M. S. S. Hilonian sailed for Honolulu May 5, with a cargo which includes 6,000 sacks of barley and 300 tons of fertilizer.

The P. M. S. S. Peru arrived May 4 from Panama, with 2,181 tons of freight and treasure valued at \$71,038.

Out 218 tons from Baltimore, the Standard Oil ship Astral arrived in port May 5, with 5,000 tons of coal consigned to the government.

The P. C. S. S. Curacao sailed for Guaymas May 7,

with cargo valued at \$43,079, consigned to Mexican ports.

The P. M. S. S. Korea arrived in port May 10, bringing 192 cabin and 387 Asiatic passengers and 6,800 tons of Oriental freight, which included 1,247 bales of silk, 3,342 rolls of matting, 5,462 bags of rice, 1,820 chests of tea and 889 sacks of coffee.

The A. H. S. S. Texan sailed for Honolulu via Seattle May 10, with a cargo of explosives valued at \$43,317.

The M. S. S. Lurline arrived in port May 9, with 11,200 sacks of sugar, 4,800 boxes of pineapples, 2,000 mats of rice and 1,000 bunches of bananas.

The German steamer Erna of the Jebson and Osterlander line left port Tuesday, May 11, with a general cargo for Mexico, Central America and Panama.

The German steamer Sakkarrah departed Monday, May 10, for southern coast ports and Europe, by way of the Straits of Magellan. She took a part cargo of lumber and flour from northern ports and received at San Francisco 1,000 tons of canned goods of general merchandise consigned to Europe.

The S. S. Nevadan sailed for Salina Cruz May 8, with a large cargo, valued at \$216,642, consigned to New York and European ports via Tehuantepec railroad. The cargo will be distributed as follows: New York, \$181,124; Germany, \$22,518; Great Britain, \$9,343; Belgium, \$4,690; Mexico, \$3,185.

The P. C. S. S. City of Pueblo sailed May 11th for Victoria with a general cargo, consigned to various British ports, valued at \$28,609.

The codfishing schooner W. H. Dimond arrived May 12 from Mega with a cargo of 105,000 codfish.

The Japanese liner Tenyo Maru sailed May 13 with a very small passenger list and an average cargo of freight, the principal item of which was 2,500 bales of cotton for Japanese ports. The liner will also take 1,000 tons of general freight for various ports.

The Australian mail line steamer Century sailed May 12th with a full cargo of freight, including 2,000,000 feet of lumber and 1,500 tons of general merchandise.

NORTHERN COAST NOTES.

Tacoma.

The steamer A. G. Lindsay, which has been laid up for repairs the last year, will resume her former Seattle-Alaskan run. Not long ago the boat was sold at a receiver's sale for \$20,000, after the original owners had expended \$100,000 in improvements on her. The present owners value the Lindsay at \$150,000.

The Pacific Cold Storage Company of Tacoma are contemplating a new steamer to supplement the Elihu Thomson, and the brig Dashing Waves. The new steamer will be of much greater dimensions than the Thomson.

Astoria.

The British barks, Peter Iredale and Calena, which were wrecked on Clatsop Beach, are being rapidly broken up and the steel shipped to the rolling mill in Portland.

The army launch, Captain Anton Springer, which left San Francisco in tow of Olson & Mahoney's steamer Jim Butler, arrived here safely and, after minor repairs, will be connected with the artillery post.

At Tacoma the new steamer Daring has had her official inspection, and will take the place of the Defiance while the latter is being overhauled, but later will operate between Tacoma and Seattle.

Nineteen vessels loaded lumber at the mills in the Lower Columbia district during the month of April.

Their combined cargoes amounted to 9,646,000 feet of lumber and 20,000 railway ties.

The Nehalem and South Coast Transportation Company have secured articles of incorporation, with a capital stock of \$25,000, with 250 shares at \$100 each. The company was formed for the purpose of operating a line of vessels between Astoria, Yaquina, Suislaw and other points on the Oregon Coast.

A gasoline schooner, equipped with a 100-horsepower, is being built at North Bend for the company and will be in service about August 1. The boat will be 95 feet in length.

While loading at St. Helens for San Francisco, the lumber schooner Majestic suddenly careened inshore, and the deck load of 10,000 railroad ties slid overboard and were lost.

The steamer Hassalo was damaged to the extent of several hundred dollars last week, and she will doubtless be laid up for repairs. While entering Megler, the current, which was running very strong at the time, threw her to the port side, about midships, against the piling of the wharf, breaking the guard clear through, and the sides of the lower house and upper decks were badly crushed. None of the passengers on the boat at the time of the accident were injured.

Port Townsend.

Fire broke out on the lumber schooner Winslow May 1, and destroyed the schooner's galley, fore-castle and donkey room, the damage amounting to \$1,000. The U. S. revenue cutter Arcata and the tug Tyee were just entering the harbor at the time of the alarm, and but for this timely assistance (both the Arcata and the Tyee are equipped with fire-fighting apparatus) the Winslow would have been a total wreck. The origin of the fire is unknown.

The Winslow, which has a tonnage of 496, has been laid up at this harbor without a charter for two months. The value of the ship, which is owned by George E. Billings of San Francisco, is approximately \$45,000.

Victoria, B. C.

Under the regulations provided by the Paris tribunal of 1894, the spring sealing season ends April 30, until the opening of the Bering Sea season in August. Owing to Japan not being a party in the regulations, the Japanese fleet is still in the north following the herd.

The Greer, Courtney & Skeena Company of this city are establishing a steamship line from Vancouver to Ganges, Pender, Fulferd and other island points. They are now negotiating for the purchase of a steamer of 125 tons register for this route. The company is also contemplating another line between this city and Bellingham.

The Waterhouse steamer Aymeric has left Yokohama for this port and will arrive about May 23. The Aymeric is taking the place of the Inveric, which will enter another trade. This will be the first time this vessel has been in Puget Sound, and being larger and more modern than the Inveric, she will likely remain on this run for some time.

Seattle.

On her first visit to Puget Sound the A. P. S. S. Admiral Sampson acted host to several hundred representatives of leading firms in Seattle and Tacoma. The trip was across the bay to Port Orchard and Bremerton. Every attention was paid to the guests, a light lunch and other refreshments being served, enlivened by music from a Tacoma band.

The former lumber bark Fresno, recently purchased by the Tyee Whaling Company, sailed for Tyee, Alaska, with supplies and men for the whaling station. The

Fresno was bought by its present owners from Pope & Talbot and was formerly employed in the coastwise trade.

Orders have been issued to all oil vessels, barges or vessels using oil, not to pour any oil of any kind in the water while in this port. Flagrant disobedience of this order on the part of oil boats entering this port lately have caused the owners of local boats to protest against this practice.

L. H. Gray & Company's steamer Corwin, which has been laid up at Eagle Harbor for the last six months, arrived in this port May 3 and sailed, with all her passenger and freight accommodations sold out, May 10 for Nome and St. Michael.

Negotiations are being carried on with Captain A. A. Moore to navigate the 19-ton tug Grayling from Seattle to Panama. Captain Moore wants \$2,000 for the trip.

The S. S. Corwin left this port May 10 for Nome, with all freight and passenger accommodations taken. For the past eight years the Corwin, formerly a United States revenue cutter, has led in the opening of navigation on the Bering Sea. The Corwin is equipped with two complete sets of the United States wireless apparatus. She will carry and install on the trip the aids to navigation maintained by the United States Government.

The Alaska Steamship Company's steamer Dolphin left port for Skagway via ports May 4. The Dolphin has been idle all the winter and during that time was placed in first-class condition for the summer's run.

The report current of the sale of the American ship Elwell to a Honolulu firm, for the purpose of transporting railroad ties from Hilo to San Pedro, was denied at the office of the Seattle Shipping Company, the owners of the vessel. The Elwell will arrive on this coast about May 15 and will load for Bering Sea ports with government supplies.

Harbor Master Spaulding has filed the following report, which shows a healthy improvement of shipping for the month of April in contrast with the corresponding month of 1908:

Last month Seattle received 11,146 tons of merchandise from Pacific Coast ports, 3,207 tons from Alaska ports and 7,712 tons from local points, of a total value of \$2,269,268. To coastwise ports Seattle shipped last month 10,607 tons of merchandise, 672,261 feet of lumber, 5,175 bundles of laths, 1,000 bundles of shingles and 20,163 tons of coal, of a total value of \$1,248,513. There is a slight falling off in the exports to the Orient. The total for April is \$773,859, a loss from \$1,003,608 in March. The total for April a year ago was \$788,137.

In imports, Seattle business continues to show a gain. The total value of merchandise received from foreign countries in April was \$2,079,304. In March the figure was \$2,003,428, and in April last year \$1,285,664. From the Orient Seattle imported goods worth \$1,693,395 last month, in March \$1,497,207 and in April, 1908, \$656,640.

The arrival of deep sea vessels numbered 114 and the departures 106. In April of last year the arrivals were 56 and the departures 53.

Sitka, Alaska.

United States Deputy Marshal Shoup has in charge the Japanese sealing schooner Kissa Maru, which was captured by an officer and a party of marines in two launches armed with machine guns May 4. Several seal-skins were found, and the crew of thirty men admit sealing illegally. The Japanese vessel was found at anchor sixteen miles from Sitka.

Cordova, Alaska.

The Alaska Coast steamer Jeanie broke her tail shaft April 30, and when temporary repairs are completed she will be towed to Seattle by the tug Tyee, where she will be docked. At the time the Jeanie was disabled the company's steamer Bertha, which had damaged her forefoot at Bella Bella the day before, was near and towed the Jeanie to a safe anchorage. A portion of the cargo of the Jeanie was distributed by the Bertha and the rest of the cargo, which is consigned to the Cape Hinchinbrook lighthouse, will be loaded onto lighters at Port Etches and towed to the cape, where the lighthouse is under course of construction.

Aberdeen, Wash.

C. A. Johnson and Frank Wilson have bought the tug Thistle from Andrew Peterson, for \$1,500.

Eureka.

The gasoline schooner Katata, now plying between this port and the Klamath, left the latter place May 8, with the N. P. S. S. Company's gasoline schooner President, which stranded near the mouth of the river last spring.

The French bark Brizeux cleared May 8 for the United Kingdom, with a cargo of 1,359,164 feet of lumber, valued at \$40,375.

NOTES.

The last naval appropriating bill provided for five torpedo boat destroyers with the highest amount of speed. The plans for these boats are now ready and only await the approval of the board of construction before bids are invited. The boats are to cost, exclusive of armament, \$800,000 apiece.

The plans of the new battleships are being rushed to completion and will include the latest development in battleship construction. The ship will be named the Arkansas and Wyoming and will cost exclusive of the armament \$6,000,000 each.

The unprecedented record in wrecks, stranding and collisions, a great number of which have proven total losses, has combined to force marine insurance companies to increase their rates, a move never before found necessary.

The Firemen's Fund Insurance Company has raised its marine insurance rates from 7 per cent to 8 per cent; the Canton insurance companies and several other companies have done likewise.

The new steamship subsidy act passed by the Imperial Diet, March 22, 1909, will go into effect February 1, 1910.

The act provides for a bounty of 25 cents per 1000-mile gross tons to all vessels of Imperial register less than fifteen years old and having a speed of 12 miles per hour.

The Osaka Shoshen Steamship Company, the new Japanese company which will inaugurate a service between the Orient and the port of Tacoma, there making connections with the Chicago, Milwaukee & St. Paul R. R., have made through traffic connection with Manchuria and Asiatic Russia to Europe, under a Russo-Japanese traffic convention, which just adjourned. Connection will be made via Japan with the steamer running to Dalny, the terminus of the South Manchurian Railroad Company, and via the Japanese government railroad to Tsuruga and the Russian volunteer steamship line from there to Vladivostok.

The Toyo Kisen Kaisha Steamship Company inaugurated, beginning May 1, with the sailing of the steamer American Maru from Yokohama, a line between the Orient ports of Mexico and South America by way of Honolulu. The Japanese line will receive a subsidy from

the Tokio government, and it is possible that the Mexican government will also subsidize the line.

The ports of call, after leaving Honolulu, are: Manzanillo, Salina Cruz, Callao and other points of South America as far south as Coronel, where the steamers will coal for the return trip to Japan.

The steamer *Sibyl Marston*, which stranded near Surf last January, is rapidly going to pieces. The hull, through the incessant pounding of the waves, is fast breaking up. The cargo of lumber, consisting of 1,000,000 feet, has been salvaged with the exception of 250,000 feet comprising the deck load, which was washed overboard.

The British shipping trade in 1908, as reviewed by John White, shows that the output of the shipbuilding yards amounted to only about 900,000 tons of merchant steam vessels, or little more than half of the preceding twelve months. The number of British ships now laid up at home and foreign ports is estimated at 1,000,000 tons. The review adds that wasteful competition is to be terminated by rate agreements, especially in the Atlantic traffic.

The sailing schedule of the Blue Funnel line for the next twelve months has been issued by the Pacific Coast agents at Seattle.

The British steamer *Bellerophon*, at Seattle, sails on the return May 19. Next will be the *Ningchow*, arriving at Puget Sound May 16 and sailing June 16. Following this liner, these steamers will arrive on and sail from Puget Sound on the dates noted: *Antiochus*, June 11, July 14; *Teucer*, July 9, August 11; *Titan*, August 6, September 8; *Cyclops*, September 3, October 6; *Keemun*, October 2, November 3; *Oanfa*, October 31, December 1; *Bellerophon*, November 28, December 29; *Ningchow*, December 26, January 26, 1910; *Antiochus*, January 23, February 23; *Teucer*, February 20, March 23.

Considerably over half a million dollars worth of wheat and wheat flour was shipped abroad through the port of Puget Sound during the month of March. Placing with this figure the smaller quantities of other grains, the total exportation of breadstuffs from Sound ports for the month was valued at \$618,109. There were 94,959 barrels of wheat flour exported, with a value of \$378,851. The wheat shipments, consisting of 235,398 bushels, were valued at \$282,799. All of these figures, however, are somewhat short of the shipments made in March of last year. Other grains and breadstuffs were shipped from Puget Sound last month in the following quantities and values: Barley, 2,122 bushels, \$1,526; corn, 2,699 bushels, \$2,196; cornmeal, 7 barrels, \$33; oats, 4,824 bushels, \$2,630; oatmeal, 1,620 pounds, \$71; rye, 3 bushels, \$3; total exportation, \$618,109. The principal exportation of livestock through the ports of Puget Sound during March was in sheep, of which 1,985, valued at \$7,822, were shipped. Only 21 head of cattle left the shores of Puget Sound for other parts, and not a single hog wandered abroad. Beef products were exported to the value of \$273, with an additional \$150 worth of fresh beef, and \$219 worth of salted, pickled or otherwise cured beef. Tallow was exported to the extent of 315,093 pounds, with a value of \$18,539. Hog products were exported in the following quantities and values: Bacon, 53,093 pounds, \$7,848; hams and shoulders cured, 86,921 pounds, \$11,881; pork, fresh, salt or pickled, 15,245 pounds, \$12,477; lard, 120,678 pounds, \$1,587; and other minor exports of dairy products and food animals, making a total exportation in these articles for March of \$62,919. The district of Puget Sound made a very substantial gain during March in the exportation of cotton over March of last year. The shipment consisted of 11,521 bales or 6,107,516

pounds, with a total valuation of \$672,343. The valuation of the cotton exportation for March of last year was \$520,610. A little over 12,500,000 pounds or 23,000 bales of cotton were exported to Japan from the United States during the month, from which it will be seen that approximately half of this amount went through Puget Sound ports.

The coffee crop of Central America is at the present time being moved by the way of the Tehuantepec railroad instead of the United States government railroad at Panama. A trial was held with shipments of coffee from Central America via Panama and Tehuantepec, demonstrating that the Mexican isthmus route is faster than by way of Panama. The crop, which will be handled through this route, will amount to over 500,000 bags.

The agents of the Canadian-Australian liner *Aorangi* at Vancouver and Victoria have been instructed not to book any passages on any of the company's steamers later than July 1 until further order. This may mean that the subsidy paid to this line by the Australian government may not be renewed on July 1, and in that case the line will be withdrawn.

The government is contemplating the establishment of a mail route between Portland and Eureka.

The *Toyo Kisen Kaisha's* new service to Mexico and South American ports was opened by the departure of the *America Maru*, which left Hong Kong April 14. Three steamers will be put on this service on regular schedule.

The *America Maru* will touch at Moji, Kobe, Yokohama, Honolulu, Manzanillo, Callao, Iquique and Valparaiso, and will sail on her return voyage to Hong Kong June 6.

The next steamer to depart will be the *Hongkong Maru*, which will be followed by the *Manshu Maru*. The three vessels will adopt a regular schedule, with sailing dates six weeks apart.

The *Seattle Maru*, the second of the six steamers which the *Osaka Shosen Kaisha* intend to build for service between Tacoma and the Orient, was launched May 5, at Kobe.

The *Tacoma Maru*, the first of the fleet to be launched, will have her trial trip May 20, and on proving satisfactory will load cargo for Tacoma. She will proceed from Shanghai and Hong Kong to Osaka, Kobe and Yokohama, sailing from the latter port for Tacoma June 29, at which port she is due July 15; sailing again for the Orient August 1.

The *Seattle Maru* will follow the *Tacoma Maru*, arriving at Tacoma August 15, and leaving again for the Orient September 1.

All the steamers will be 6,000 tons net register and 480 feet in length and 55 feet beam.

The *Osaka* company has chartered the British steamer *Strathearn*, of the *Strat* fleet, to operate with the *Tacoma* and *Seattle Marus* until the third vessel of the fleet is ready.

Victoria, B. C., Thursday, May 6.—Japanese warships are to be sent to Bering Sea to protect the sealers from Yokohama, Tokyo, Niigata, Hakodate and other ports across the Pacific which flock to Bering Sea in growing numbers each year. This is the news from an authoritative source at Tokyo.

A letter received here says: "In view of the fact that Japanese sealers are seized every year in and about Bering Sea on charges of poaching, the Japanese government is considering a proposal to send warships there during the sealing season for the protection of the sealers. This appears a somewhat dangerous proceeding, likely to involve the risk of international trouble, and

many prominent officials are of this opinion. The request for the sending of Japanese warships is made by the sealing interests."

Eleven marine torpedo boats, which are now in reserve at the Norfolk navy yard, will be shipped to the Philippine Islands for coast service, via the Pacific Coast.

In an account of an accident which happened to the liner Peru at Honolulu, when she bumped into Bishop slip, then in the course of construction, which was published in a Honolulu paper, the statement was made that the mishap occurred on account of the intoxicated condition of the chief engineer of the vessel. He was said to have misinterpreted the signal and sent the vessel full speed ahead instead of full speed astern. As a chief engineer of liners the size of the Peru seldom goes into the engine room, only when supervising special repairs, and having nothing to do with the control of the boat, the item in the paper was unwarranted, and in a later issue they apologized for their erroneous statement.

The Newport News Shipbuilding and Drydock Company has secured a contract to construct two large freight and passenger steamers for service on the Pacific Coast, to cost in the neighborhood of \$1,500,000. The ships will be the highest type of combination passenger and freight vessels, will be 400 feet in length and have engines capable of driving them at a rate of more than seventeen knots an hour. It is supposed that the vessels are to be constructed for the San Francisco and Portland Steamship Company, to be used in conjunction with the steamship Kansas City, which vessel was recently purchased in the East.

Traffic agreements have been effected between the New Mexican-Oriental steamship line established from Salina Cruz to Hongkong, under the agency of Dodwell & Co., with the American-Hawaiian Steamship Company for carrying the freight from Atlantic Coast points to the Orient via the Tehuantepec Railway. This will be an opposition service to the railways and transpacific lines engaged in the Oriental trade with regard to freight originating in eastern centers, and will not be affected by the rulings of the Interstate Commerce Commission of the United States, as the transcontinental railroads of that country and their allied steamship lines have been.

Announcement of the inauguration of the new service was made by President George S. Dearborn of the American-Hawaiian Steamship Company on his return to New York after his recent visit to Pacific Coast ports. The Mexican-Oriental Steamship Company will operate from Salina Cruz to ports of China and Japan and the American-Hawaiian line will connect with their steamers via the Tehuantepec National Railway at Coatzacoalcas. Three British steamers—the Sheikh (2,328 tons), Atholl (3,031 tons) and Troll (2,887 tons)—have been chartered for the Pacific service of the Mexican-Oriental Company.

Work on the construction of a lighthouse at Cape Hinchinbrook will begin May 1, and it is expected to have the lighthouse in operation next winter. The lighthouse will cost between \$70,000 and \$80,000, exclusive of light proper, which will be furnished by the Government, and the contract is held by the Standard Building Company of Seattle. Cape Hinchinbrook is located on Hinchinbrook Island, at the entrance to Prince William Sound. Vessels bound to and from Valdez pass the point, which for long has been known as a dangerous spot.

Supervising Inspector Birmingham has decided that two firemen were all that were necessary on a single-boiler schooner burning oil and having two furnaces. Inspector Birmingham investigated on an appeal case, the firemen contending that the glare on the eyes from the oil burners was so bad that two men could not serve.

LEGAL.

Judge Bordwell of the Superior Court of Los Angeles, Cal., has rendered a decision which crowns the efforts of Los Angeles to maintain a free harbor at San Pedro and Wilmington. The demurrers of the Southern Pacific, the Banning Company and other corporations were overruled by the court in the twelve suits to wrest from private hands the control of the ocean frontage at Wilmington and granted the defendants thirty days in which to file their answers.

In a decision handed down by United States District Judge J. J. de Haven, the interstate commerce act could not be applied to steamship lines carrying freight from foreign ports to the United States. The decision was reached in the suits brought by the United States against the Southern Pacific Company and the Pacific Mail Steamship Company, in which the demurrers of the steamship company were sustained and those of the railroad company overruled. Several indictments were brought against the steamship and railroad companies for hauling matting from Kobe, Japan, to Springfield, O., for less than the through joint rate filed with the Interstate Commerce Commission. The court held that the interstate act does not apply to a common carrier of freight on the ocean, although the freight is carried to some inland point of the United States. The Pacific Mail Steamship Company contended that it was not bound to observe the rate filed with the Interstate Commerce Commission, as the interstate commerce act could not be held to apply to ocean shipments. Judge de Haven sustained the company's contention, at the same time holding that the railroad, having filed a unitary rate with the steamship company, it could not depart from it, although it applied in part to the ocean haul.

Douglas Brothers have attached the dredger Pacific of the American Contracting Company of Aberdeen on an unpaid claim of \$600.

Portland—The suit of the Dalles, Portland and Astoria Navigation Company against the river steamer Charles R. Spencer, involving a claim for \$10,000 for damages sustained during a collision with the river steamer The Dalles City on the morning of May 31, 1905, is on trial in the Federal Court before Judge Walverton. The collision was due, according to the run of the testimony, to the rivalry of the Spencer in recklessly running the opposition boat while attempting to pass the latter on their usual trip down the Willamette.

San Francisco.

Suit has been brought in the superior court to recover \$3,600 damages from the Shoshone Steamship Company, for the death of Olof Nilsson, a marine fireman. Nilsson was employed on the steamer Shoshone, and while in Willapa harbor, Wash., he was washed overboard and drowned, through, according to the complaint, the negligence of the captain of the vessel. He was the sole support of his aged father.

Port Townsend.

The crew of the fishing schooner Alice are preparing to force a case into court for the settlement of a point that will establish a precedent as to the rights of fishermen in salvage cases. In July of last year the crew of the Alice picked up the steam schooner Otter, which was drifting with disabled engines off the west coast of Vancouver, and towed her to a safe anchorage. For this service the owners of the Otter paid \$2,500. The owners of the Alice offered the crew \$55 in settlement for all claims of salvage, which was refused, but at the same time the crew agreed to settle one-fifth of the amount

on the owners, the rest to be divided among themselves, share and share alike.

"Aboard the *Alice*, as is the custom with most fishing vessels, the crew share equally in profits after one-fifth has been declared for the owner," said one of the crew. "The crew pays all fuel bills, as well as every other running expense.

"As operators of the *Alice* on 'lays,' we contend that any rule of distributing earned salvage that holds with ordinary commercial vessels has no effect in our case. We shall contest our claim along this line to a finish."

E. A. Sims, principal owner of the *Alice*, explaining the offer made the crew, made the following statement:

"A division of \$55 per man of the crew is on a basis of more than one-fourth of the returns as their share. Net cash brought \$2,300 after deducting expenses incurred. Every court decision we have been able to find has been exceeded with the offer made, and our position is final.

"We maintain that the operation of a fishing boat on the share or 'lay' basis does not alter the standing of the vessel from the regular merchantman in the matter of salvage money."

CHARTER MARKET.

At the present time there are very few sailing vessels under charter to bring European freight to America and especially to the Pacific Coast, owing to the uncertainty of the settlement of the tariff question. This is an unusual situation for this time of the year, as a large fleet of vessels are usually on the way with general cargoes for the Pacific Coast. The importers who have engaged tonnage have secured them at so low a rate as to warrant a small profit regardless of the tariff revision.

"Immediately after the tariff question has been settled, more foreign goods will begin coming into this country than ever before. The leading merchants and importers throughout the United States are impatiently waiting for this matter to be disposed of before buying extensively abroad. Material of all sorts will be brought to this Coast from the Orient and Europe, and shipping will take on a new lease of life."

Such is the report given out by T. S. McRath, of the import firm of T. S. McRath & Co., who returned this morning from a trip to New York and Boston, in which cities he spent a month.

"After the import duty schedule has been fixed by Congress," concluded Mr. McRath, "there will be ships chartered to bring cement, pig iron, coke, fire bricks and great quantities of building material to this Coast. There will also be heavy importations of silk and other goods classed as luxuries. In the shipping world I look for a wave of prosperity to roll over the country. The same prediction is made in New York and Boston."

Owing to the advance made by the shipowners on grain cargoes from 27s 6d to 28s 9d, chartering, which started so briskly a few weeks ago, has almost completely subsided. Some owners are asking as high as 30s for sailing vessels.

The rates on steam tonnage, recently quoted at 28s 6d, have advanced to 30s on grain cargoes, although no steamers have so far been engaged for grain cargoes.

The Hastings mill of Tacoma has canceled its charter with the British bark Hawthornbank. The vessel was 250 days out from Holland for Eagle Harbor.

French ship *David I. Angus*, cement, London to Portland; return to Europe with a wheat cargo.

American schooner *Borealis*, lumber at Puget Sound for Guaymas; Norwegian steamer *Tordenskjold*, coal,

Puget Sound for Mazatlan; American ship *E. M. Phelps*, coal, from Norfolk to Seattle; French bark *Pierre Lote*, wheat, Portland to European port, at 27s 6d; British ship *Cissie*, lumber, Tacoma to United Kingdom, supposed rate 56s 3d; American bark *Alta*, lumber, Vancouver, B. C., to Iquique; American ship *William H. Macy*, lumber, Portland to Port Natal, private rates; British ship *Colony*, cement, Antwerp to San Francisco, with Portland option; British ship *Manx King*, cement, Antwerp to San Diego, with Portland option; schooner *Melrose*, lumber, Puget Sound to Guaymas; schooner *Minnie A. Caine*, lumber, Gray's Harbor to Halphong; British bark *Altair*, general cargo, Newcastle-on-Tyne to Portland; French bark *Francois*, cement, Antwerp to Puget Sound; British steamers *Courtfield*, 2,874 tons, Den of Crombie, 3,125 tons and the *Belle of Vreland*, 2,772 tons, coal, from Atlantic range to Manila; schooner *Oliver J. Olson*, lumber, Eureka to Honolulu, private terms; British steamer *Clan Macinnis*, merchandise, San Francisco to Australia; British steamer *Katauga*, coal, Comox to Guaymas. The ship *J. B. Thomas* has been purchased by eastern parties, terms private.

MEETING OF THE BOARD OF STATE HARBOR COMMISSIONERS MONDAY, MAY 10, 1909.

The telephone lines of the Home Telephone Company will stop at the northerly end of the Ferry building until such time as the company can show the board contracts with customers that necessitate the installation of proposed pipe lines along or through said building.

The bill of R. W. Hunt for 4,144 barrels of Portland cement amounting to \$207.20 was ordered paid.

The Pacific Cereal Association asks that a uniform charge for switching freight cars on the Belt railroad be established. At the present time the charge for switching cars west of Mason street is \$3.50 as compared with \$2.50 per car for switching east of that street.

The proposal of the Thomson Bridge Company for pulling up the piles on the old drydock at Central basin was accepted.

Olson & Mahoney Lumber Co. asked to surrender berth space at Section A of the seawall, taking effect May 10, 1909.

Secretary was directed to inform those occupying berth space along the seawall north of the Ferry building that the wharf spaces immediately behind said spaces will be considered a part of their berth assignment from June 1, 1909, with rental at 50 cents per linear foot per month.

Adjourned to Thursday, May 13, 1909.

Meeting of Thursday, May 13, 1909.

An informal bid of N. H. Hickman for furnishing 250 eucalyptus piles to the board was accepted, to be furnished as follows:

12-inch piles	.....20 cents per linear foot
13-inch piles	.....21 cents per linear foot
14-inch piles	.....22 cents per linear foot
15-inch piles	.....23 cents per linear foot
16-inch piles	.....24 cents per linear foot

Informal bid for furnishing 20 tons of 65-pound tee rails, A. S. C. E. standard, with fish plates, f. o. b. San Francisco, was opened and the contract awarded to the Pennsylvania Steel Co. on the basis of their bid as follows: 30 or 35-foot lengths, with 10 per cent shorter lengths first quality, \$41.02 per gross ton. With 5 per cent second quality rails, \$40.02 per gross ton. Necessary angle bars, \$2.14 per ton. All f. o. b. San Francisco.

W. S. Gelatt has installed, with the consent of the Commissioners, on an experimental basis, six illustrations on a monthly rental of \$10 for each machine.

Hickman & Masterson Co. ask to surrender the berth space occupied by them at Section B of the seawall at the end of the current month.

The assignment of 200 feet berth space near Mason street and east of Federal assignment at Section B of the seawall made to Hickman & Masterson Co. was ordered rescinded to take effect June 1, 1909.

Hickman & Masterson Co. state that they can still use a portion of seawall lot B and ask what rental the board would ask for 100 feet off said space west from Mason street, between Jefferson and East streets.

A space of 100 feet of seawall lot B west from Mason street, containing 3,968 square feet was assigned to Hickman & Masterson Co. and rental fixed at \$30 per month, beginning June 1, 1909.

The Columbia Box Factory asked the board to reconsider the increasing of rates in so far as it applies to them.

The board offered the company use of wharf lot space as additional part of berth space at the rental of 50 cents per linear foot.

The matter was referred to the engineer and the chief wharfinger for report as to certain consignments carrying with the special conditions on Channel street and elsewhere.

The Pacific Coast Dredging Co. have returned the mud scow rented to them by the State from April 30th up to and including May 7th at \$10 per day.

The engineer estimates that the number of Koetitz patent piles that will be used during the ensuing year will be about 200.

The secretary was directed to invite informal bids for 80 of such piles, to be followed by orders up to 200 piles in all.

The request of Harvey & Roberts to reconsider the board's action increasing rental of berth space occupied by them was denied.

The superintendent of the Belt Railroad stated that in reference to the advisability of reducing the charge of switching on the Belt Railroad from \$3.50 to \$2.50 per carload in territory west of Mason street, the reduction should be made and a uniform charge of \$2.50 per carload be established for all territory served by said Belt Railroad.

The recommendation was adopted.

A rental charge of \$10 per month was fixed, to take effect June 1, 1909, by the board, for each cable landing maintained by different companies on the waterfront.

The Gray Bros. Crushed Rock Co. have rented the State scow No. 1, beginning at 2 o'clock p. m. of the 12th instant.

The engineer of the Board was directed to prepare plans and specifications for the necessary work on Pier No. 9, as per request of the Pacific Coast Steamship Co. The board refused to enter upon the repairs and changes asked for by the company on pier No. 11.

Adjourned to Thursday, May 20, 1909.

SALVAGE OF THE MINNIE E. KELTON.

The suit for \$40,000 for salvage of the steam schooner Minnie E. Kelton, in the abandonment of which off Yaquina Head May 3, 1908, 11 of the crew were lost, was finally closed in the United States Court after several days of trial.

The libelants are the Washington Marine Company, owners of the steam schooner Washington, and the latter's master, H. C. Nason. The Washington towed the Kelton into Astoria harbor and grounded the vessel near Smith's Point.

The history of the Kelton from the date of the storm in which she almost foundered has been one of disaster and financial trouble. After she grounded near Smith's Point it is declared that attempts to save the vessel and cargo were delayed about ten days by libel suits. These were finally adjusted. The underwriters paid the insurance and took over the vessel, but by that time the ship was so imbedded in the sand that it was impossible for three steamers, acting together to pull her off into the channel. Attempts to lighter the schooner were then made, but the current undermined one side and while the work was in progress the Kelton turned turtle.

It was necessary to right the vessel, and after this was accomplished the ship was lightered again and all was made ready to tow her into drydock. While waiting for a tug the Kelton broke away and drifted toward the sea, again grounding. The underwriters then removed the machinery and sold the hulk to Daniel Kern for \$1400, after having expended \$12,000 to \$14,000 in attempting to save the vessel.

Kern, it is said, sold the remaining cargo for \$2500 and at an expense of several thousand dollars is converting the Kelton into a sea-going barge that will be worth \$30,000.

The \$40,000 salvage claimed by the steamer Washington is for services rendered prior to the disastrous attempts to get the Kelton off the beach at Smith's Point, and the claim is made by the libelants that the vessel, if that work had been properly done, could have been saved for \$1000.

On the other hand, the owners of the Kelton attempted to show that the Kelton was not a derelict when picked up by the Washington, and that the Washington forfeited any claims for salvage by gross negligence thereafter in attempting to tow a waterlogged ship, drawing 24 feet of water, over the bar at low tide and in grounding the Kelton at an exposed place in Astoria harbor.

The Kelton's cargo was lumber, taken on at Aberdeen. The storm of May 2 completely disabled the vessel which was finally anchored near Yaquina Head, with the furnaces flooded and all but about 40 feet of the bow out of water. The two lifeboats were smashed in an attempt to launch them and 11 men were drowned. Captain McKenna and the remainder of the crew were taken ashore by the life-saving crew at Yaquina Station. The evidence conflicts as to whether the Kelton was drifting or well anchored when the Washington took the disabled craft in tow. It is also a disputed point whether Captain McKenna had determined fully to abandon the disabled ship. It is the contention of the owners that he went ashore to telephone for assistance and that no watchman was left aboard because the ship had no lifeboats remaining for use in the event the watchman's life was imperiled.

In the effort to defeat the claim for salvage, an attempt was made to show that the Kelton pounded on the bar so hard in crossing that the hull was badly damaged, and the counter claim was made that the salvors were really responsible for the total value of the ship.—Portland Oregonian.

S. S. SAGINAW.

The frontispiece is of the steam lumber schooner Saginaw, recently acquired by the Hartwood Lumber Company. She is at the present time on the run between San Francisco and Gray's Harbor.

The Saginaw was built about eight months ago and is 200 feet in length, 41-foot beam and 15-foot depth of hold. She is equipped with an 800-horsepower engine and makes 10½ miles per hour. The Fulton Iron Works of San Francisco built the machinery and the Matthews Shipbuilding Company of Hoquiam, Wash., built the hull, and cost complete \$135,000. She has a gross tonnage of 820 tons and a lumber capacity of 850,000 feet.

Pacific Merchant Marine

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ADVERTISING RATES ON APPLICATION
Address All Communications to the Pacific Merchant Marine

Judge Sylvester G. Williams of Denver, special examiner for the government, Special Assistant Attorney General C. A. Severance of St. Paul and Arthur Husted of Washington, D. C., have begun the taking of testimony in this district relating to the Western railroads merger case. The railroads are represented by R. S. Lovett of New York, consul for E. H. Harriman, and Peter F. Dunne of this city, representing the law department of the Southern Pacific Company. The inquiry is being conducted by virtue of a bill of equity filed in the Eighth Circuit Court of the United States, and involves the Union Pacific Company, the Oregon Short Line Railroad Company, the Oregon Railroad and Navigation Company, the San Pedro, Los Angeles and Salt Lake Railroad Company, the Atchison, Topeka and Santa Fe Railroad Company, the Northern Pacific Railroad Company, the Farmers' Loan and Trust Company, the Southern Pacific Company, the Great Northern Railroad Company, E. H. Harriman, James A. Clark, Henry C. Frick, H. H. Rogers, James Stillman, Otto H. Kahn and Jacob A. Schiff. These companies and individuals represent vast railroad interests and are pitted against whom?—the merchants of the Pacific Coast.

The able counsel representing the government is well qualified to bring forth the most vital points of the inquiry, and the testimony thus far elicited has developed a means of comparison between individual nominal interests and merger methods. The Pacific Coast has a grievance against the first, and will suffer proportionately from the second. If the merchants of the Pacific Coast are combating the merging of railroad interests, at the same time they are admitting the merits of the merger system, and one as old as the lands we occupy. Yet these same merchants retain the more antiquated form of competition between one port and the other, and greedily accept every opportunity of airing their real or fancied grievances in the most crude and selfish manner.

The decision of the government in the railroad merger case can be based only on the points of law involved. It is no reflection upon the integrity of the government

officials to anticipate a decision in their favor, but it is a reflection upon the railroad interests that needed and created these laws to encourage continual violation of them.

The first train connecting the Atlantic and Pacific on the Isthmus of Panama was run on October 1, 1851—the forty-eight mile line running from Aspinwall to Gatun. Six years were consumed in building the road, at the sacrifice of many lives and the expenditure of \$8,000,000. The road is the shortest and one of the most valuable transcontinental railways in existence.

In connection with the organization in New York, under the laws of that state, of the South American Exhibit Company, United States Consul Alfred A. Winslow writes from Valparaiso that the movement to inaugurate an exposition of United States merchandise at Santiago in September, 1909, has been favorably met in Chili.

The government is desirous of forwarding the interests of the company in every way possible. Through the consul general of Chili, in New York City, inquiries have been sent to about 7,000 manufacturers as to whether they desired to extend their commercial activities throughout Chili, to which 4,200 affirmative replies were received.

Manufacturers are to be asked to contract for space according to their respective requirements, and, after having paid the price stipulated by the company in its contract forms, will forward their wares to New York, whence they will be shipped by authorized steamers to Valparaiso and subsequently transported to Santiago and installed in government buildings.

A renowned American seaman, the late Captain M. F. Maury of the United States Navy, may rightfully be deemed the founder of scientific marine meteorology. He first gathered the strands of the subject, laid them up into a coherent whole, and eventually arranged the result so as to be useful to seafarers for all time. By force of his indomitable energy and his "infinite capacity for taking pains," Maury induced shipmasters of the merchant navies all the world over to co-operate with him in the good work. They supplied carefully kept observations of wind, weather, temperature of air and sea, atmospheric pressure and other items of interest, taken at specified hours day and night at certain geographical positions during the voyage. Maury's brilliant deductions from the scattered data, obtained from thousands of observations, have seldom been equalled and never surpassed in value. To Maury's masterly methods the world's navigators owe very much.

As a result of that illustrious American's efforts, the United States Government convened an international maritime conference, which met at Brussels in 1853 and drew up a scheme for the record of observations of marine meteorology. Ever since that gathering of seamen, the collection of data has been steadily proceeded with by the state-supported departments of all nations. Marine meteorology is, therefore, naturally based upon the earnest co-operation of those that go down to the sea in ships.

The British Empire League is an association that was formed in London in 1895 for the purpose of promoting trade between the United Kingdom, the colonies and India, fostering closer intercourse between the different portions of the empire by the establishment of cheaper and more direct steam, postal and telegraphic communication, devising a more perfect co-operation of the mili-

tary and naval forces of the empire, with a specific view to the due protection of the trade routes, assimilating as far as possible the laws relating to copyright, patents, legitimacy and bankruptcy throughout the empire, the calling of periodical conferences to deal with these and similar questions on the lines of the London conference of 1887 and the Ottawa conference of 1894.

SHIPBUILDING NOTES.

Union Iron Works.

S. S. Washtenaw came off Hunter's Point drydock Saturday, May 8, and is now at the works for repairs on wheel and shaft.

S. S. Senator on drydock Saturday, May 8, for miscellaneous repairs.

Good headway is being made on boiler work on the S. O. S. S. Col. E. Drake.

Moore & Scott.

San Pablo at works Monday, May 17, to receive new smoke stack.

Work completed on S. S. Winnebago, and she will put to sea Monday the 17th.

Barge Coolora, used for transporting water for the California & Hawaiian Sugar Company, is on the drydock for cleaning, painting and repairs to hull.

Barkentine Jas. Luft will follow the Coolora on the drydock for cleaning, painting and repairs to hull.

Schooner Muriel will be placed on drydock Tuesday, May 18, for caulking, cleaning and painting.

Steamer San Pedro is at the yards receiving repairs to her machinery.

United Engineering Works.

P. M. S. S. Newport on drydock, for general overhauling.

Portland.

The artillery boats, which have been in the course of construction at the yards of the Willamette Iron and Steel Company for the last four months, was launched May 7. Two of these boats are being built by the iron works and the other, which is not quite finished, will be launched in about a week. Each of the boats is 98 feet long, 22 feet beam and 12 feet draft. The engines are of 350 horsepower and the contract calls for a speed of 10½ knots. The boats are built entirely of steel with the exception of the pilot house.

The new steamer Hyak, which was built for the Kitsap Transportation Company, was launched at the Supplies Yards May 8. The dimensions of the vessel are: Length, 134 feet; beam, 22.2 feet; depth of hold, 5.5 feet; gross tons, 195.93; net tons, 118. The total cost of the Hyak is \$60,000. She will be operated on Puget Sound. It is expected that the Hyak will do better than 20 miles an hour. She will operate out of Seattle.

The work of converting the tug Hunter into a freight and passenger steamer is progressing slowly, and she will not be ready for her journey to Puget Sound before a month.

The changes on the tug Hunter, at present at Supplies Shipyard, being converted into a freight and passenger carrier, for service between Bellingham and San Juan islands, will be completed in a few weeks.

The Port of Portland is equipping the Columbia river bar pilot schooner Joseph Pulitzer with an 80-horsepower gas engine, which will give her a speed of 10 miles. The pilotage service between Portland and the sea will be taken over by the Port July 1.

The dredge Clatsop is on the drydock for cleaning and painting.

Long Beach.

The Craig Shipbuilding plant will endeavor to prepare the large tug they are building for the Western Pacific Railroad Company for launching on July 4.

Seattle.

The steamer Morning Star is at Eagle Harbor for repairs. She run ashore at Deception Pass April 31, and upon examination it was found that her forefoot was started and she was leaking in the bilges.

The A. S. S. Victoria, which has been idle all winter, was docked at Quartermaster's Harbor May 2 and received a general overhauling, prior to proceeding to Valdez and Cordova. The Victoria will take the place of the Pennsylvania for one trip, while the latter is being overhauled and painted.

The S. & H. S. S. St. Croix was on the Moran Company's drydock for one week, having part of her copper sheathing removed and iron work substituted to protect her from the ice floes of Bering Sea.

Built for Maurice McMicken, a prominent Seattle lawyer, and equipped at a cost of about \$20,000, the most pretentious houseboat in the Northwest was launched last evening at 7:30 o'clock at the yards of Joseph Sloan, on the East waterway. The ceremony was attended by a party of Mr. McMicken's friends and after the launching, at which Mrs. McMicken christened the boat Lotus, an enjoyable luncheon was served on board. The vessel will be finished in a few weeks and will be used by the owner for cruising about the inland waters of Puget Sound and the northern coast.

The Lotus is 93 feet long, 18 feet beam and draws six feet of water. She is equipped with an 80-horsepower Globe engine and can make about 10 miles an hour. She has a fuel capacity for 1,000 miles. Designed and built under the supervision of Lee & Brinton, marine architects, she is complete in every respect.

The owner's cabin is forward and extends the full width of the boat, with his private bath on the port side in the rear. On the starboard side are two staterooms, each containing two beds. The main saloon, which is finished in fir, is 14x17 feet.

Back of the engine room are the crews' quarters, galley and servants' quarters. On the upper deck the pilot house is just in front of the smoking room, which is finished in fir. The vestibule is finished in mahogany and the staterooms in white enamel. The Lotus carries three boats, one a 20-foot power craft, a 14-foot gig and a 12-foot dingey. She is lighted by electricity, has hot and cold water in all rooms and has an electric hoist or windlass to operate the anchor. She will be complete by June 1.

Marshfield.

The Smith-Power Logging Company have finished a new stern-wheel tugboat, which will be used in towing logs on the bay and river.

The Western Steamboat Company, of New Westminster, B. C., has abandoned its steamer Ramona, which sank near Fort Langley April 21st. The steamer was valued at \$18,000, the only parts worth salvaging being the engine and machinery, which will be removed and sold.

A modern principle of education: is if you are in doubt upon a subject the next best thing to know is where to look for definite information; the proper application of this principle in business transactions is an indication of progress, and must bring about the same degree of success in the latter case as in the former, and has made the name of Weeks, Emerson & Howe, San Francisco, so well identified with the Ship Chandlery business on the Pacific Coast.

PROPOSED ORGANIZATION

OF

The Pacific Coast Commercial Bureau

Our Infantile Efforts and Hopes for the Rehabilitation of the American
Merchant Marine receive encouragement.

On January 9 of the present year Pacific Merchant Marine made its first appearance in public. One object prompted the enterprise. Many predictions were made upon the success of the same. Our efforts have been crowned with success, to the extent that we are justified in placing our magazine at the disposal of those who fully appreciate the commercial advantages of the Pacific Coast and who are willing to inaugurate a movement from which results are sure to follow.

With this object in view, each merchant citizen of the Pacific Coast interested in the commerce thereof is respectfully requested to forward his name and address to this office. When sufficient names have been received notice will be sent from this office of a meeting to be held wholly and solely for the purpose of forming an organization in the interest of the commercial resources of the Pacific Coast.

Pending completion of the proposed organization, no person in the employ of this paper is authorized to call upon or otherwise communicate with you, and we earnestly request that any breach of this fact shall be promptly reported at our office.

PACIFIC MERCHANT MARINE,

95 MARKET STREET,

SAN FRANCISCO, CAL.



PLEASURE CRAFT



OTH the yachtsmen and the motorboat contingent are thoroughly pleased with the season's opening, and the prospects for a successful year are looking better every day. After the earthquake many of the old-timers dropped out of the game, and those who would have liked to get into it hardly had the necessary time or money to devote to it. Now, however, things

have dropped back to normal, and those who enjoy a whiff of the salt air and the tingle of the salt spray are rapidly getting into line and the pleasure of the boating game is booming in all its branches.

The local builders report a steadily growing demand for boats, especially launches, and the end of this season will see more pleasure craft on San Francisco Bay and its tributaries than ever before.

Last Sunday the San Francisco Yacht Club's opening cruise about the bay started the ball rolling on the Sausalito side, and although some of the yachts were not in commission, a fine showing was made. The jinks Saturday night were all that the jinks committee promised and thoroughly enjoyed by all present.

Com. Fulton Berry, who has for many years been a prominent figure in yachting circles, and especially in the Corinthian Yacht Club, has, much to the surprise of his friends, put up his sloop Nixie for sale. Nixie is one of the finest yachts on San Francisco Bay and would be a welcome acquisition to any of the local clubs, and there is much speculation as to who will be the lucky purchaser. She will be sold at auction on the floor of the Merchants' Exchange, Thursday, May 27, at 1:30 p. m. Her dimensions are 52 feet over all, 38 feet water line, 14 feet beam and 8 feet draft.

The members of the Corinthian Yacht Club are much exercised over the fact of the sale, and it is hoped that she will be bought in by some of the club members.

Com. Berry has for some time been in poor health, and his doctors have ordered a complete change of climate, necessitating his absence for six months or a year. It is generally rumored, however, that upon his return he will build a larger boat, as he is one of the most enthusiastic yachtsmen on this coast, and it is hardly possible that he intends to give up the game.

Capt. Harry Diamond's sloop, Aeolus, is now in commission and ready for a season's sport. Aeolus was at one time the fastest thirty footer on the bay and is the winner of many trophies.

G. R. McGuffick is contemplating the purchase of the yawl Sea Bird.

The sloop which has been building in the shop of Pete Swanson at Belvedere was hauled out onto the ways yesterday preparatory to launching, which will probably take place early next week. She is from the design of the Macarthy Brothers, her owners, and is intended for use

on Corte Madera creek and about the bay. The owners expect her to show good speed in addition to being a comfortable and seaworthy cruiser, and those who have seen her are inclined to agree with them in this.

The announcement that Sir Thomas Lipton will again try for the America's Cup and will forward his challenge to the New York Yacht Club next August, has just been formally made from Naples, where Sir Thomas is with his yacht Erin.

D. C. McDowell of Sacramento recently launched a 21-foot motorboat, which on its trial trip developed twelve miles an hour with four passengers. The power consists of a 6-horsepower double opposing Leader engine.

F. Koehler of Sacramento will soon have his 23-foot launch completed.

John Norby has been putting the racing sloop Corinthian into commission for her coming race with the sloop Maphe of the San Diego Yacht Club, and her racing crew will try her out Sunday.

Ross Wright, who has, for several years, sailed with Com. Berry on Nixie, has signed up as one of the crew on Capt. Miller's Yankee.

Admiral Geo. Briggs had a merry crew on board his Bonita last Sunday and cruised out to heads and around the bay, finally running up to Escalles, where a slight beverage was indulged in.

We are told that a certain well known yachtsman went to sleep at the wheel last Sunday night and mistook California City for Oakland upon awakening.

Several Seattle launches operating on Lake Washington have been reported by the revenue cutter service to the local custom house for having insufficient equipment and for otherwise failing to obey the regulations. It is said that half a dozen owners have been found disobeying the law. The charges are now under consideration, and it is expected that a few penalties will be enforced by the department of commerce and labor in order to draw attention to the requirements of the regulations.

The launches reported have been found without proper equipment, such as whistle, fog horn, lights or without the pilot rules posted.

"Persons operating small vessels can get information as to the rules and regulations," said a member of the local custom force yesterday. "In this office we will be glad to furnish all data that is necessary."

"There will be heavy traffic on the lakes this summer and there are many new boats in service. Government agents will be active to see that there are no violations of the law, and it will be well for owners and operators to inform themselves as to what is required and to comply with the regulations. There will be special details, both from the customs and revenue cutter services, to look for offenders."

Messrs. P. Bahr and W. F. Holmes of Oakland, Cal., are having a 40-foot high-speed cruiser built from designs by Carlson & Corfield.

The plans show a type of boat very popular for week-end excursions about San Francisco bay and tributaries, the speed giving sufficient cruising radius to enable the owners to spend nearly all day Sunday at the point of amusement.

The dimensions are as follows: Length over all, 40 ft.; beam over planking, 5 ft. 5 in.; draft extreme, 28 in.; freeboard forward, 3 ft. 6 in.; freeboard amidships, 2 ft. 9 in.; freeboard aft, 2 ft.; headroom in cabin, 5 ft.; weight of hull, 2800 lbs.; weight of engine, 2000 lbs.; displacement with fuel, passengers, etc., 5200 lbs.; seating capacity, 12 people.

The general finish of the cabin is quartered oak with semi-permanent plate glass windows 3-16 in. thick. The sills are arranged to drain overboard thereby protecting the upholstery and interior finish from the wet.

By extending the transom seats, two comfortable berths can be made up, using the upholstery for the mattress. The bedding is stowed in the lockers underneath.

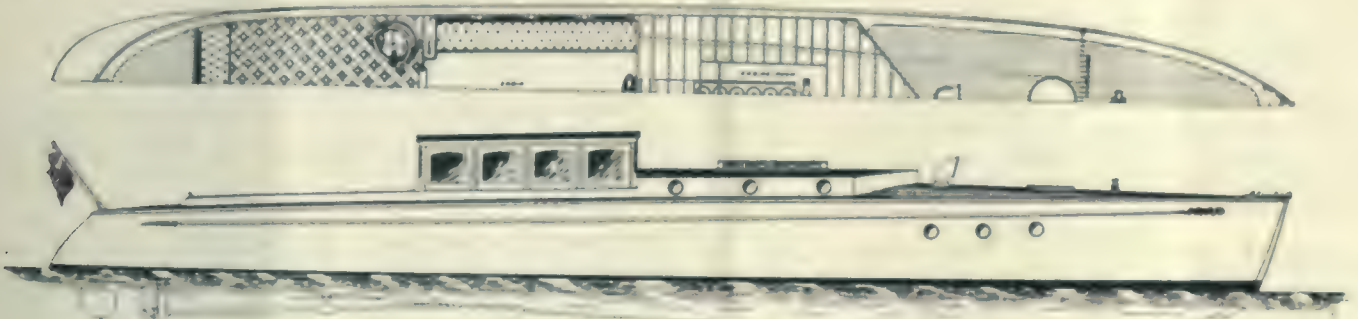
The cockpit is self-bailing with a comfortable "lazy back" seat across the stern. Chairs and campstools provide seating capacity for the rest of the passengers.

The propelling power of the boat is a 6-cylinder 4-cycle, make and break gasoline motor of $5\frac{1}{2}$ in. bore and 5 in. stroke, developing about 58 horsepower. It turns a 21-in. diameter by 36-in. stroke bronze propeller, 1000 revolutions per minute and is expected to drive the boat between 15 and 16 miles per hour. The shaft is bare from the sleeve aft and is carried on two struts.

The specifications call for a boat of light construction with scantlings as follows: stem 2 in. sided; keel, $1\frac{3}{4}$ x 4 in. oak; frames oak $\frac{7}{8}$ in. x $\frac{7}{8}$ in.; planking $\frac{5}{8}$ in. cedar; deck, $\frac{1}{2}$ in. T. & G. covered with canvas; clamp $1\frac{1}{2}$ in. x 4 in.; stringers $1\frac{3}{4}$ in. x 3 in.

The boat is arranged with the fore peak separated from the engine room by means of a water-tight bulkhead.

The engine room can be entered either through the hatch in the deck or through a door from the cabin. Over the engine a light hunting hood is built for headroom and a hatch on top of this hood provides access for a general overhauling of the engine. The important item of ventilation has been taken care of by means of a cowl on the deck, three ports on the side and three ports in the hunting hood. Additional light is obtained through the glass windows of the engine hatch.



Forty-foot High-Speed Cruiser Designed by Carlson & Corfield, Alameda, Cal., 1909.

STEAM YACHT "LUCERA."

The cut shown herewith is of the steam yacht "Lucera" owned by Capt. Harry Goodall of the San Francisco Yacht Club. "Lucera" was built for Charley Fair, in 1895 and was equipped with a gasoline engine. With this equipment however she was hardly a success, as at that time the internal combustion engine had not yet reached its present



LUCERA, S. F. Y. C., CAPT. GOODALL.

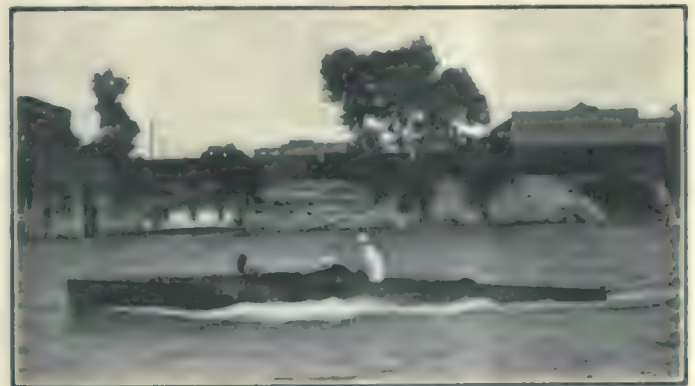
state of perfection. "Lucera" was purchased in 1905 by Capt. Goodall, entirely remodeled and a 250 H. P. triple expansion steam engine installed, giving her a speed of about 18 knots an hour. She is fitted up in the most luxurious style and compares favorably with any of the Eastern yachts of her size.

Her principal dimensions are as follows: 92 ft. over all, 16 ft. beam, 8 ft. side, 10 ft. draft.

KONOCTI BEATEN BY GENERAL II.

A surprise was handed to the local motorboat enthusiasts last Saturday when General II, owned by E. Forrest Mitchell and Bernard Klune of Sacramento, beat Gray & Holt's famous Konocti by three seconds.

Saturday's race was the first of a series of three out of five and Gray and Holt still have hopes of coming out victorious.



General II is a much smaller boat than Konocti and of a different type, but Saturday's performance proves that she is a dangerous rival and makes her the favorite in the betting.

The General II has a record of victories in the East, where it won the Saginaw river championship and the Saginaw valley championship, developing a speed of 25 $\frac{1}{2}$ miles an hour.

HOW TO PAINT A BOAT.

How to paint a boat and how to make the paint wear and stay bright after it is applied are two very different problems.

There is considerable art, or, at least, "knack," in the proper wielding of the brush—and good paint can be made to go wrong by poor application—but no amount of skillful work will make good paint out of badly chosen material.

As a general thing, it pays to employ a good painter, no matter what the job is, and the painting of large vessels is always very wisely put into the hands of experienced painters. The owner of the pleasure boat, however, is apt to consider painting as much a part of the sailor's work as knotting, splicing, casting an anchor or furling a sail. If he takes that view of it, he should learn to know paint materials and how to mix them and how to apply them.

What Parts to Paint.

The outside of the hull, deckhouse and some parts of the interior, are proper subjects for the paint brush, and some of these parts should receive attention every year.

Preparing the Surface.

If the woodwork to be painted is new, dust it off carefully and cover all knots and sappy streaks with orange shellac. The shellac should be made as follows: Four pounds dry orange gum shellac thinned with one gallon of pure grain alcohol. Prepared shellacs are often made up with deleterious oils which either fail to dry hard or crack off. Put the shellac on thin. If too thick, the paint will alligator, leaving the knots bare. Prime the new wood with a thin coat made up as follows:

Priming Coat.

100 pounds pure white lead,
6 to 7 gallons pure raw linseed oil,
1 gallon pure turpentine,
1½ pints pure turpentine Japan drier.

All paint should be mixed from these ingredients at the time of painting, not only because the composition of prepared paints is uncertain, but also because pigment and oil should not be allowed to stand long after being mixed together before the paint is applied.

After the priming coat has thoroughly dried, all cracks, nail holes, dents and defects in the surface should be carefully filled with putty. Use sandpaper to take the gloss off the shellacked knots and to smooth down rough places.

Body Coat.

Mix the second coat of paint as follows:

100 pounds pure white lead,
1½ gallons raw linseed oil,
1½ gallons turpentine,
1½ pints Japan drier.

It depends upon how many coats are to be applied, as to how the third coat should be mixed. Many boatmen put on five or six coats brushed out very thin. This is without question the best practice, not only for boat painting, but for any painting, for several thin coats are much better than the same thickness of film secured by putting on two or three thick coats.

Repeat, therefore, the second coat as many times as may be desired, and then finish with a coat mixed as follows:

Finishing Coat.

100 pounds pure white lead,
½ gallon pure raw linseed oil,
2 gallons turpentine,
1½ pints turpentine Japan drier.

These formulas give a "flat" or dull surface, which wears much better under exposure to the water than a film rich in oil.

Interior Painting.

For painting interior woodwork in cabins, saloons, etc., proceed as follows:

New woodwork should have a thin coat of orange shellac, which will prevent the sap from discoloring the paint. Sandpaper the shellac with fine paper before painting. Putty all nail holes and joints.

Priming Coat.

100 pounds pure white lead,
2 gallons pure turpentine,
½ gallon pure raw linseed oil,
1½ pints pure turpentine Japan drier.

Second Coat.

100 pounds pure white lead,
2 gallons pure turpentine,
1 pint light enamel varnish,
1½ pints turpentine Japan drier.

Repeat this second coat until all dark places of the wood are thoroughly covered. This will give a "flat" or dull finish. If an egg-shell gloss is desired, apply another coat mixed as follows:

Egg-Shell Gloss Finish.

100 pounds pure white lead,
2 gallons turpentine,
1½ pints turpentine Japan drier,
½ gallon light enamel varnish.

Gloss Finish.

For a gloss finish add three pounds pure white lead in oil, made into a thick paste with turpentine, to one gallon of light varnish. Mix well and apply the same as paint.

Any desired tint can be obtained with white lead except the very dark ones. A very little lamp black or drop black to the hundred pounds of white lead makes various grays. A little Prussian blue in white lead makes the lighter blues; and so on for all tints of the rainbow.

Painting Metal Parts.

Iron and steel hulls, masts or other metallic parts of a vessel, should be painted first with red lead, mixed 25 to 33 pounds of red lead per gallon of pure linseed oil. The linseed oil should be one-third boiled and two-thirds raw oil. Varying quantities of red lead are given because conditions are not always the same. The more pigment to the gallon of oil the better, up to 33 pounds.

After two coats of red lead, finish with white lead tinted to suit, if on ornamental parts, or with anti-fouling paint below the water-line if desired. On the latter point, however, the best practice is to let the red lead stand uncovered below the water line.

A Few General Suggestions.

In mixing paint, break up the white lead into a thin paste, then add the drier and whatever tinting colors may be desired, thoroughly incorporating them with the lead and oil. Then add the balance of the oil.

Use a round pound brush for general painting and brush the paint out well.

Have a different brush for each color to be used.

Use a small fitch or sash-tool for corners and other places hard to get at.

Be particular to give plenty of time for each coat to dry before another is applied.

Articles of incorporation have been filed in Sacramento by the Washington Motor Boat Club. The directors are E. M. Brown, George A. Meyers, C. A. Clark, R. C. Blohm, and Alfred Dalton Jr. The organization is incorporated for a term of fifty years, and Sacramento is named as its principal place of business. The articles state that the purposes of the corporation are to acquire, operate, and use motor boats and other water craft, and for the social entertainment of club members and others.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

Information of importance to mariners bound for the canneries in the North Pacific and Bering Sea is given in the current number of the pamphlet issued by the U. S. Hydrographic Office. Northern waters are not yet accurately charted and navigators have to proceed with extreme caution. Where masters find conditions contrary to what the charts represent, the Hydrographic Office are pleased to learn of the discrepancies.

The master of the schooner North King, reports that only two fathoms of water can be carried through Isanotski Strait at the east end of Unimak Island. Therefore vessels can pass through the strait only at high water. At the northern end of the strait there are depths of two fathoms, but one-half mile off shore there are only two fathoms, where the charts show sixteen, eleven and twelve fathoms. Isnotski Strait is sometimes used by smaller vessels which wish to attempt the shorter passage into Bering Sea, rather than go around by way of Unimak pass.

The following hydrographic information concerning Bristol Bay and the approach of the Nushagak river, Alaska, has been received from Warren & Co., salmon packers:

"Vessels bound into the Nushagak river usually proceed northeastward along the north coast of the Alaskan peninsula to the Chicagof (Ugaguk) river, and then ahead across the bay for Cape Constantine. Some vessels go to the northeastward far enough to sight Johnston's hill, which is snow-capped the year around, before heading across the bay for the Nushagak river. This course is not always practicable, however, and some years it is necessary to steam northward from Unimak pass and approach Nushagak river from the westward, skirting the ice pack along its northern edge.

"The land of Cape Constantine and its immediate vicinity is low, and in the spring, when covered with ice and snow, has the appearance of floating ice fields. Vessels heading across the bay from the Chicagof (Ugaguk) river for Nushagak river should, therefore, keep Round Island, which is high and plainly visible, in line with Cape Constantine. The St. Nickolas hills are five low hummocks, which can only be seen from inside the river. They are not 250 feet high, as shown on the charts.

"The prevailing winds in Bristol Bay in the spring are from the eastward, but the ice along the northern coast of the peninsula does not drift much, although the currents are influenced somewhat by the winds. Approximate position of

Johnston's hill, latitude 58 deg. 35 min. north long.; 127 deg. 10 min. west."

Captain J. S. Greene of the steamer Nevadan reports to the Branch Hydrographic Office at San Francisco that on May 4, in latitude 47 deg. 37 min. N., longitude 124 deg. 50 min. W. (14 miles S. 77 W. true from Destruction Id. Light) he passed a mooring buoy, unpainted, about 10 feet in diameter.

J. C. BURNETT,
Lieut., U. S. N., in charge.

Mr. R. W. Look of the steamer Newport reports to the Branch Hydrographic Office as follows:

At the mouth of the Suchiate river, which forms the boundary between Mexico and Guatemala, on the Pacific side, a shoal has made out, the breakers on it extending out one-half mile off shore when the sea is heavy.

Off the Samala river, in Guatemala, the 10-fathom curve is about two miles farther out than charted on H. O. chart 931.

At the mouth of the Lempa river, in Salvador, there is less water outside the 10-fathom curve by about three fathoms, than is shown on H. O. chart 931.

The report on the condition existing off the Samala river is confirmed by Mr. F. Klocking, first officer of the German steamer Erna, who also states that the shoal shown on H. O. chart 931 at that point has extended farther to the northwestward and southeastward and that it breaks all the way along.

J. C. BURNETT,
Lieut., U. S. N., in charge.

NOTICE TO MARINERS, POINT CABRILLO, CAL. (List of Lights and Fog-Signals, Pacific Coast, 1908, page 22, No. 58, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 36.)

Notice is hereby given that Point Cabrillo Light Station will be established June 10, 1909, on Point Cabrillo, about 350 feet from its end, about 25 miles NNW'y from Point Arena Light House, and about 73 miles SE'y from Cape Mendocino Light House.

The light will be of the third order, flashing white every 10 seconds, 84 feet above the water, 32 feet above base of tower, and should be visible 143-4 miles in clear weather, the observer's eye 15 feet above the water.

The tower is a white octagonal frame structure, with brown trimmings, and surmounted by a black cylindrical lantern. It rises from the rear of a one-story, white, fog-signal building

TIDE TABLE TO WEEK ENDING SATURDAY, JUNE 5.
Golden Gate Entrance to San Francisco Bay.

MAY										
Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
S	Fri	7	6:40	-0.2	14:04	4.5	18:35	3.2		
	Sat.	8	0:02	5.6	7:26	0.3	15:04	4.6	19:12	3.3
	Sun.	9	0:32	5.5	8:14	0.3	16:08	4.6	20:15	3.5
	Mon.	10	1:13	5.3	9:08	-0.2	17:10	4.7	21:20	3.7
	Tues.	11	2:10	5.1	10:05	-0.1	18:05	4.7	22:40	3.5
3rd. quar.	Wed.	12	3:45	4.7	11:02	0.1	18:50	5.0		
	Thur.	13	0:00	3.2	5:26	4.5	12:02	0.4	19:30	5.2
	Fri	14	1:06	2.5	6:58	4.6	13:08	0.7	20:04	5.4
	Sat.	15	2:03	1.8	8:10	4.7	14:00	1.0	20:40	5.6
	Sun.	16	2:55	1.0	9:12	5.0	14:50	1.3	21:14	5.9
E	Mon.	17	3:35	0.3	10:12	5.1	15:15	1.7	21:50	6.1
	Tues.	18	4:22	-0.3	11:14	5.0	16:20	2.0	22:25	6.3
	Wed.	19	5:10	-0.7	12:14	5.0	17:04	2.4	23:04	6.3
	Thur.	20	6:00	-1.0	13:15	4.8	17:50	2.8	23:42	6.2
	Fri.	21	6:48	-1.1	14:16	4.6	18:38	3.2		
N	Sat.	22	0:25	5.9	7:40	0.9	15:20	4.6	19:30	3.4
	Sun.	23	1:10	5.7	8:27	-0.7	16:20	4.7	20:32	3.6
	Mon.	24	1:54	5.2	9:20	-0.3	17:18	4.7	21:48	3.9
	Tues.	25	3:00	4.7	10:10	0.1	18:08	4.9	23:15	3.6
	Wed.	26	4:20	4.2	11:00	0.5	18:50	5.2		
1st. quar.	Thur.	27	0:34	3.2	5:45	4.1	11:50	0.9	19:22	5.3
	Fri.	28	1:30	2.7	6:58	4.0	12:45	1.2	19:54	5.6
	Sat.	29	2:10	2.1	8:00	4.0	13:28	1.5	20:22	5.4
	Sun.	30	2:45	1.6	9:00	4.1	14:08	0.8	20:45	5.5
	Mon.	31	3:10	1.1	9:48	4.3	14:45	2.1	21:06	5.6
JUNE										
Full	Tues.	1	3:45	0.5	10:38	4.4	15:25	2.3	21:30	5.7
	Wed.	2	4:22	0.0	11:25	4.4	16:05	2.6	22:00	5.8
	Thur.	3	5:00	-0.5	12:15	4.5	16:45	3.0	22:34	5.9
	Fri	4	5:44	-0.8	13:06	4.5	17:25	3.2	23:05	6.0
	Sat.	5	6:25	-0.9	14:00	4.5	18:14	3.3	23:40	5.9

Time used, Pacific Standard, 120th Meridian W.
Oh—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	18	May 1	13 ft. at L. W. in channel to Hoquiam and Aberdeen.
Willapa Bay	27	May 1	No change in channel, 16 feet M. L. W. in channel to South Bend.
Columbia River	24	Feb. 6	
Nehalem River	9	Apr. 30	Channel is 300 ft. south of buoy.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	13	Mar. 12	Channel not changed.
Sluslaw River	4	May 1	Beacon on beach in line with south side of gulch leads over bar.
Umpqua River	12	May 1	Channel is in good condition.
Coos Bay	17	May 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	8	May 4	Channel shifted north close to jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	8	May 2	Channel shifting to southwest.
Humboldt Bay	18	May 1	North channel crooked and difficult, 15 feet in south channel at L. W.
San Pedro Bay	19	Apr. 30	No change in channel.
San Diego Bay	25	May 3	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

with brown trimmings and red roof. Three white, two-story frame dwellings, with red roofs, stand about 600 feet E'ly from the tower; a white barn, with red roof, and several small out-buildings near by.

The approximate geographic position of the light, as taken from Coast and Geodetic Survey Chart No. 5705, is latitude 39 deg. 20 min. (50 sec.) N., longitude 123 deg. 49 min. (35 sec.) W. Point Arena Light House, 170 deg. 36 min. true (SSE. $\frac{3}{4}$ E. mag).

Punta Gorda, 335 deg. 19 min. true (NW. $\frac{1}{4}$ N. mag).

The fog signal, a first-class, compressed-air siren, will sound thus:

Blast, 2 sec.; silent interval, 2 sec.; blast, 2 sec.; silent interval, 24 sec.

NOTICE TO MARINERS, HUMBOLDT, CAL. (List of Lights and Fog-Signals, Pacific Coast, 1908, page 24, No. 61, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 37.)

Notice is also given that the characteristic of the fog-signal at Humboldt Light-Station, Cal., will be changed about July 1, 1909, to sound as follows:

Blast, 4 sec.; silent interval, 26 sec.; blast, 4 sec.; silent interval, 26 sec.

W. G. MILLER,
Commander, U. S. N.,
Inspector, 12th Light House District.

NOTICE TO MARINERS, SAN PABLO BAY, CAL. (List of Lights, Buoys and Daymarks, Pacific, 1908, page 30.)

Notice is hereby given that San Pablo Bay Buoy No. 1, marking the end of the shoal off Mare Island, San Pablo Bay, Cal., heretofore reported almost submerged, was replaced by a new buoy May 11.

W. G. MILLER,
Commander, U. S. N.,
Inspector, 12th Light House District.

CIVIL SERVICE EXAMINATIONS.

The United States Civil Service Commission announces that the following examinations will be held at San Francisco, Cal., at an early date:

Architectural and structural steel draftsman.

Assistant chemist (male), office of public roads, Department of Agriculture.

Mechanical assistant, with knowledge of refrigerating machinery, Department of Agriculture.

Photo engraver, Philippine service.

At Orland, Cal., an examination will be held on May 26, 1909, for the position of junior clerk in the reclamation service. For application blanks for the junior clerk examination, applicants should address the board of examiners, reclamation service, at Orland, Cal.

For application blanks for any of the other positions mentioned above, address Secretary twelfth civil service district, postoffice building, San Francisco, Cal.

SIGNS OF THE PROXIMITY OF ICE IN NAVIGATION.

The proximity of ice is indicated by the following described signs, and, if even only one of these is noticed, the necessary caution should be used, for, although a vessel may receive serious damage from contact with masses of ice, the exercise of proper care will make it possible to avoid collision with a large berg.

Before ice is seen from deck the ice blink will often indicate its presence. This is readily understood when it is known that it is caused by the reflection of the rays of light from the sun or moon. On a clear day over the ice on the horizon the sky will be much paler or lighter in color and is easily distinguishable from that overhead, so that a sharp lookout should be kept and changes in the color of the sky noted.

On a clear day icebergs can be seen at a long distance, owing to their brightness, and at night to their effulgence. During foggy weather they are seen through

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the fog by their apparent blackness, if such a term can be applied.

They can also be detected from the echo of the steam whistle or fog horn. This should be remembered, since, by noting the time between the blast of a whistle and the reflected sound, the distance of the object in feet may be approximately found by multiplying by 550.

The presence of icebergs is often made known by the noise of their breaking up and falling to pieces. The cracking of the ice or the falling of pieces into the sea makes a noise like breakers or a distant discharge of guns, which may often be heard a short distance.

The absence of swell or wave motion in a fresh breeze is a sign that there is land or ice on the weather side.

The appearance of herds of seal or flocks of birds far from land is an indication of the proximity of ice.

The temperature of the air falls as ice is approached, especially on the leeward side, but generally only at an inconsiderable distance from it. The fall of the temperature of the sea water is sometimes a sign of the proximity of ice, although in regions where there is an intermixture of cold and warm currents going on, as at the junction of the Labrador current and the Gulf stream, the temperature of the sea has been known to rise as the ice is approached. If a berg be grounded, water flowing past it will be lowered in temperature and thus give an indication of its presence. Change of temperature may therefore serve as a warning, and frequent observations, both of the temperature, of the air and of the sea should be taken and considered.

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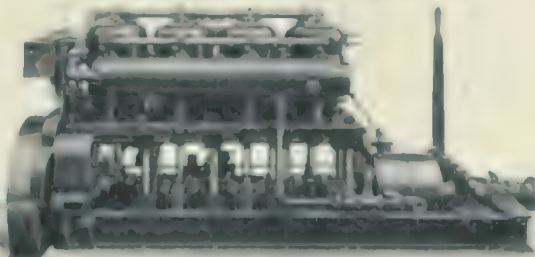
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PACIFIC MERCHANT MARINE

VOL. II

SATURDAY, MAY 22, 1909

NO. 10

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Hon. Charles H. Grosvenor

The Panama Canal

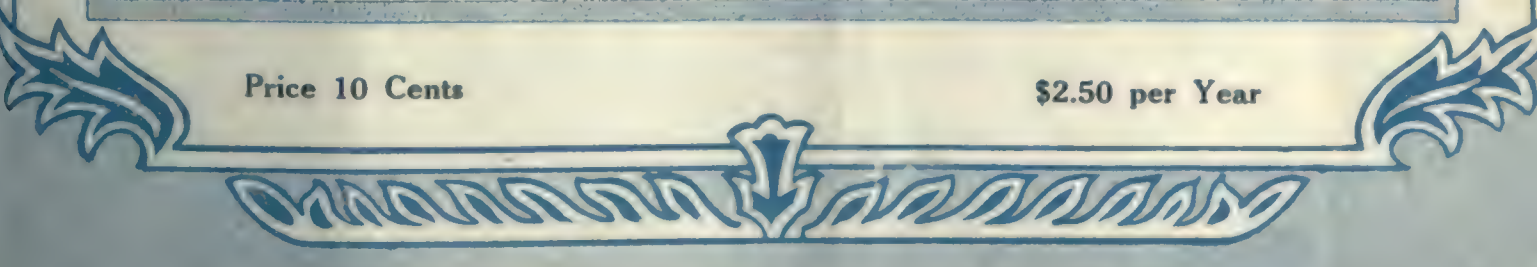
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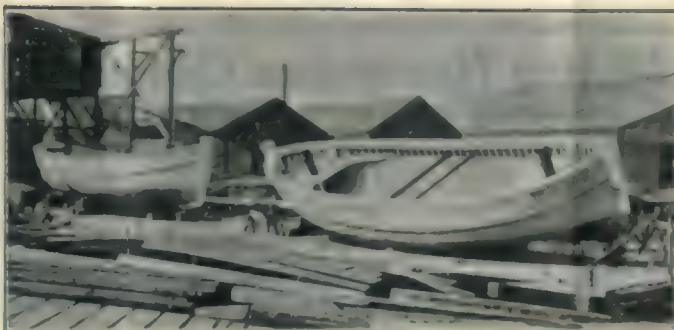
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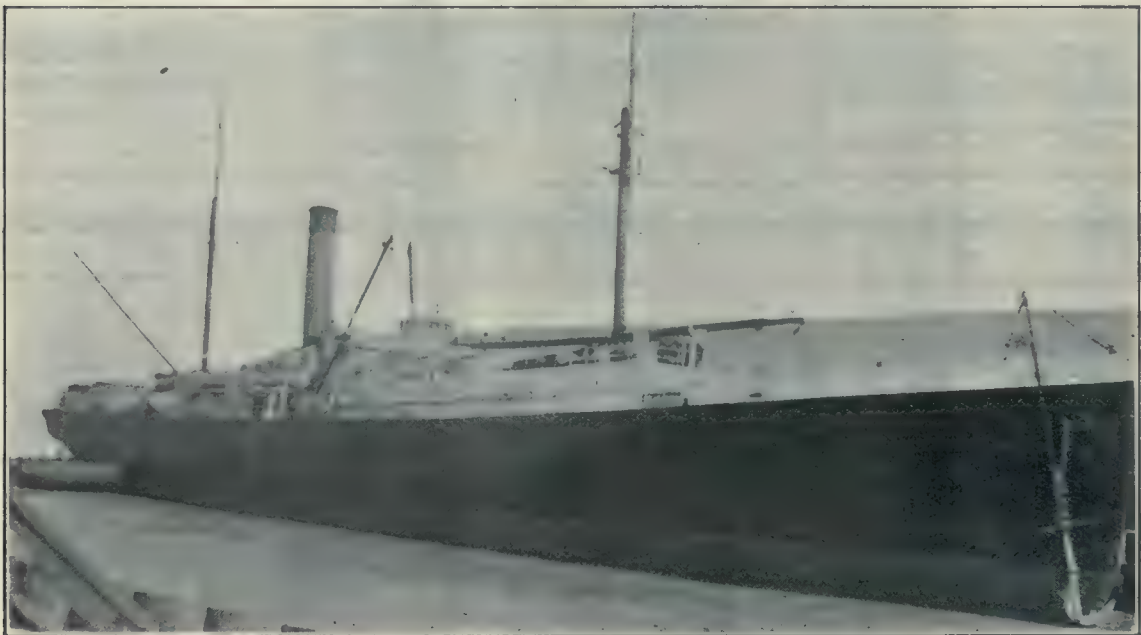
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Volume II

SATURDAY, MAY 22, 1909

Number 10

SPEECH OF HON. CHARLES H. GROSVENOR

of Ohio, in the House of Representatives
April, 1905.

Mr. Chairman: I propose to address the House on the topic of the ship-subsidy bill, a topic that is usually discussed with a great deal of interest pending campaigns before the country and about which very little interest is manifested after the election. The language that is used ordinarily by the candidate for President, the party platform, the campaign speakers, and the candidates for Congress who are running before the people is to announce that they are in favor of "encouraging" the building of ships. I embrace this opportunity to announce that the time for "encouragement" has passed and the time for assistance is now here. It will not answer in the future for any political party or any candidate for any office to mislead his hearers by the use of the word "encourage." Encouragement is a dead letter, and the American people who favor some action in behalf of this great measure now demand that the friends of the measure shall co-operate to assist, and "encouragement" will be hereafter ruled out in party platforms and in inaugural addresses and in messages to Congress and in solicitation for support by industrial forces of the United States.

What the Bill Will Do.

This bill of the Merchant Marine Commission, which has already passed the Senate, will, in the first place, give the United States what it now absolutely lacks—a trained naval reserve of the picked officers and men of its merchant marine and fisheries instructed in gunnery, enrolled, organized and disciplined, and ready to man the auxiliary ships or to re-enforce the fighting crews in case of war. Every other maritime power except the United States now has such a reserve, a sea militia, a second line of ocean defense, holding the same relation to the regular navy that is held toward the regular army by our State militia or National Guard. The existing State naval militia in this country is composed almost entirely of landsmen, and is useful only for harbor or coast defense. We need a naval reserve of skilled and hardy professional seamen, the possession of which did much to give Japan a brilliant victory and the lack of which proved a fatal weakness in the naval system of Russia in the recent war. But we cannot have these naval reserve men unless we have, in the first place, ships on which they can follow their calling of the sea. This bill will give us a fleet of fifty or sixty first-class ocean steamships running on a dozen new lines—vessels aggregating from 200,000 to 300,000 tons, all built on designs approved by the Navy Department and held by the terms of their contract absolutely at the disposal of the Government. These mail ships will constitute a naval reserve of fast transports, ammunition ships, supply ships, auxiliary, repair and hospital ships, etc., which the report of Admiral Dewey declares are indispensable to the efficiency of our fighting squadrons in case of a contest with a real naval power. Without these auxiliaries the most powerful fleet of battle ships is worthless. Besides auxiliaries for the Navy—one at least for each man-of-war—we must have a large fleet

of transports to enable us to send our soldiers in an emergency to China, the Philippines, Hawaii, Alaska, Cuba, Porto Rico, or the Isthmus of Panama. The War Department declares that "Now, and for the immediate future, the force for which our military establishment is maintained cannot be exerted over-sea. The first quick blow, so very and increasingly important, cannot be struck at all, nor can an expedition of any greater size be embarked without delay, except by the use of foreign vessels. This condition cannot improve until the American steam seagoing merchant marine has increased in tonnage to approximately two and one-half times its present volume by the addition of ships adapted in size and design to quick conversion into suitable transports and built under conditions which make their voluntary surrender to the United States on demand a foregone conclusion."

In other words, in a serious war the United States would be absolutely crippled because it has not enough ships to send to our possessions over-seas enough men to defend them against a foreign enemy, and the merchant marine of the United States will have to be increased two and one-half times before it can transport the troops that could be mustered out of our present modest military establishment.

A Great Fleet of Cargo Vessels.

This bill of the Merchant Marine Commission, through its subventions to cargo vessels, will bring, in ten years or less, a net addition to our cargo carrying and fishery tonnage of 1,500,000 tons, thereby increasing fourfold the actual ocean shipping of the United States and giving us in foreign trade a merchant marine much larger than the entire merchant fleet of France and Norway, twice that of Italy, and twice that of Japan. With such a merchant fleet as this the United States could carry under its own flag, not 10 per cent as now, but 30 or 40 per cent of its own imports and exports, and these ships would earn for their country, instead of \$20,000,000, from \$60,000,000 to \$80,000,000 annually in mail, freight and passenger receipts, compensating us many times over for the total cost of the subventions.

These cargo ships and the dozen new lines of American mail steamships to South America, Central America, Africa, Asia and the Philippines will reduce freight rates at the same time they improve our transportation service. They will have the same effect that a competing railroad has upon the traffic of any given community. Instead of old, slow, ramshackle foreign craft that now crawl out irregularly with our products to South America, we shall have regular, swift and economical American steamers. These ships must be built in the coast States of the Atlantic, Pacific or Gulf of Mexico. But the materials for their hulls and machinery will be drawn from many States—from the iron mines of Lake Superior, from the forests of Michigan, Wisconsin and the South. And the cargoes which these ships will carry will come from every State and every Territory in the Union.

A great, prosperous merchant fleet will benefit not only the coast States and their people, but the people of every State and Territory. This will be a new national industry giving work and wages to thousands and tens

of thousands of our population. "Ships," declares President Roosevelt, "work for their own countries just as railroads work for their terminal points." These ships, once built and afloat, will get to work to make new markets for the products of the agriculture of the Mississippi Valley, the grain States of the Northwest, the cotton States of the South and the Southwest, and the manufactures of New England, New York, Pennsylvania, Illinois and Indiana. They will put an end forever to the present humiliating dependence upon our foreign competitors for the means of reaching the markets where we and they are striving for the mastery. We shall have delivery wagons of our own without relying upon the delivery wagons of our rivals. And above all we shall have waiting and ready a great fleet of auxiliary and a great body of brave, skilled and patriotic American seamen who, while serving our trade in peace, will be ready to defend our coasts and our flag in war.

PORTO BELLO QUARRY IN THE CANAL ZONE.

Capacity of 2,400 Cubic Yards a Day of Eight Hours.

Two million, two hundred and fifty thousand cubic yards of crushed rock are to be used in the concrete work of Gatun Locks and the spillway of Gatun Dam. To supply this rock the quarries at Porto Bello (a port on the Caribbean Sea 18 miles east of Colon) were opened and a crusher plant with a capacity of 2,400 cubic yards a day has been built. An article in The Canal Record of September 2, 1908, reviewed briefly the conditions at Porto Bello and described what had been accomplished up to that time. Since then the opening of the quarry has continued, and the crusher plant has been practically completed.

From the beginning the construction was delayed by slow delivery of materials from the States, and the inconvenience of working at a point where a machine shop must be erected and a village constructed before the actual operations of quarrying and building the crusher plant could be carried on economically. On November 20, 1908, the earth overlying the rock on the hill above the power plant slid and pushed the boilers from their foundations, causing an additional delay of several weeks. Notwithstanding these hindrances rock was furnished for the spillway concrete as soon as the mixing plant at the spillway was ready. Two crushers are now at work turning out 600 cubic yards of rock a day. In the course of six weeks all of the eight crushers, comprising two units, will be ready for operation. If they work six days a week it will require until about January 1, 1913, for the crushers to complete their work.

The Quarry.

The quarry is in a hill that rises sheer from the water on the east side of the entrance to the harbor of Porto Bello. Extensive borings indicate that the supply of rock is practically unlimited. It has been estimated at twenty million cubic yards, and only 6,734,000 yards will be required in the construction work—2,500,000 yards at Gatun and 4,500,000 in the breakwater in Limon Bay. The rock is a massive andesite with a specific gravity of about 2.70, crushes readily, and is well suited for concrete.

In opening the quarry work was begun at a point 85 feet above sea level. A steam shovel was set at work grading for the floor of the crusher plant, and has continued around the face of the hill, cutting and grading a shelf or terrace for tracks and climbing at the grade rate of 2½ per cent. The present plan contemplates a line of terraces or inclined planes running up to 255 feet above sea-level, but it is probable the quarry will be opened up to an elevation of 300 feet or more. The shelf is made broad enough to hold a steam shovel and a double track railroad.

Before quarrying is begun the rock is stripped of overlying earth by a stream of water forced through a 2-inch nozzle, pumped from the bay through a 10-inch main by an underwriters' pump, delivering 1,500 gallons a minute against a static and friction head of 460 feet. The pipe is laid up to the 265-foot contour and when the stripping is finished it will be used as an additional air main. The stripping is done at less than 2 cents a cubic yard, including the cost of power, pump, hose and labor. The rock thus bared is drilled and blasted. Twenty-four 3⅝-inch drills and six 2½-inch tripod drills are now in use, and at the present time the average day's work for a drill is 34½ feet, but with more experienced drill runners 40 to 50 feet per 9-hour shift will be accomplished. Compressed air for the drills is supplied through a 6-inch main which has been laid to an elevation of 265 feet. There is very little loss of air at the drills and the working pressure is about 100 pounds. The holes are drilled about 10 feet apart and are loaded at the bottom and in the middle with light charges of 60 per cent dynamite, the object being to shatter the rock without throwing it. Toe or lifting holes are also used.

After it is blasted the rock is loaded upon cars by steam shovels. Two 70-ton steam shovels are now loading rock, in addition to the two pioneer shovels that are continuing the terraces up the hill. When the plant is in full operation five 70-ton shovels will be kept busy loading. In order that they may not load stone too large for the crusher, the dippers of these shovels have a capacity of only 1¾ cubic yards, and to enable them to handle stone continuously they are constructed of extra heavy plate and have teeth of manganese steel. A two-inch water service line supplies the shovels with water. At present only a single-track railroad is in use, but when working at its full capacity the plant will use double tracks. The shovels load the rock upon specially designed Oliver steel dump cars of 6 yards capacity. Ten 40-ton, six-wheel, Porter switching locomotives, with a wheel base of 9 feet and entire load on the drivers, haul the trains from the shovels to the crushers. These locomotives were set up at the Porto Bello shop, and are working on as high as a 4½ per cent grade and on a maximum 52 degree curve. When the permanent track lay-out is completed the curves will be reduced to a maximum of 28 per cent and the grades to not over 3 per cent.

Crushers, Power Plant and Shop.

The crushing plant is built in two units, each consisting of one No. 9 and three No. 6 McCully gyratory crushers. Rock is dumped from the cars into the No. 9 crusher, which takes stone twenty-two inches in thickness and crushes it into pieces not over six inches in size. After leaving the No. 9 crusher the rock passes through a revolving screen which allows the pieces less than three inches in size to drop into the main chute. Pieces larger than three inches are delivered to any one of the three No. 6 crushers, where they in turn are reduced to three inches or less and are dropped into the main chute. At present one No. 9 and one No. 6 crusher are in use, and they crush 600 cubic yards a day without crowding. The second No. 9 and five No. 6 crushers are being installed. The two additional No. 6 crushers on the lower bench will be erected, although it is not likely they will be used except in an emergency.

From the chute the stone discharges into a double transmitting pan conveyor. The conveyors are in duplicate, and either or both conveyors may be used for either or both crusher units. The conveyors take the rock from elevation six feet above sea-level up an incline to a point 36 feet above sea-level, where they dump it through hoppers into duplicate cross-bucket conveyors, which move

on tracks around the storage bin, the upper track being at elevation 69. From the cross conveyors the rock is tripped into the portion of the bin desired. The bin is located on the edge of the water, and the rock barges tie up alongside of it. It has a capacity of 2,500 cubic yards. At each twelve feet along the face of the bin is a chute through which the rock is loaded into the barges.

Power to run the crusher plant and compressors, generate electricity and pump water to the quarries, is supplied from a power house located between the storage bin and the face of the hill. Steam is developed by six Oswego-McNaul water tube, brick-set boilers, rated at 185-horsepower each, and two Stirling water tube boilers of the same capacity are on order. The fuel used throughout the crusher plant and quarries is coal, and a bunker capable of holding 1,000 tons has been erected on the water front near the power plant and rock storage bin. A crane mounted on top of the bunker lifts coal from barges by means of a clam-shell bucket, and the coal is supplied to locomotives and for the power plant through chutes in the rear of the bunker.

Two tandem compound Ball engines, of 300-horsepower each, both driving on the same shaft, transmit power to the crusher plant. All the power is transmitted by rope drives, except that from the main shaft to the counter shafts of the No. 9 crushers and screens, and the drives to the crushers themselves, which are rubber belted. Manila rope 1½ inches in diameter turning on a 10-groove pulley is used on the main drive.

The air compressor equipment consists of one Laidlaw-Dunn-Gordon compressor, with a capacity of 2,200 cubic feet of free air a minute to 100 pounds pressure, and one Franklin compressor with a capacity of 1,200 feet of free air per minute to 100 pounds pressure. Both compressors are compound for steam and air. A 75-k. w. direct current, 115 volt dynamo, direct connected to an Ames engine, furnishes current to light the village, for night work in the quarry, and to run the machinery in the shops. A duplicate of this dynamo is on order. The accessory plant consists of two condensers with air and circulating pumps, feed-water pumps and feed-water heaters.

To assist in erecting the plant and putting the equipment in service a machine shop was built and equipped with the following machines driven by two 15-horsepower motors:

One each—1,100 pound steam hammer; 60-inch radial drill; 30-inch by 30-inch planer; 36-inch by 19 feet engine lathe; 24-inch by 22 feet engine lathe; 36-inch double punch shears; 24-inch shaper universal crank; 20-inch sliding head drill; 6-inch pipe thread and cutting machine; 2½-inch single head bolt cutter; cold saw; drill grinder; duplex emery grinder; frame and stone grindstone; portable boiler testing pump; portable hydraulic crank pin; press; valve reseating machine. A 30-ton crane, 5-foot gauge, for wrecking and heavy work, and 15-ton crane, 3-foot 6-inch gear, for general work, are also part of the equipment.

LOCAL.

The Canadian-Australian steamship service between Vancouver and Sydney via Honolulu, Suva and Brisbane will be continued for another year from July 1st. This company, which is subsidized by the New Zealand government, desired to place faster and more modern steamers on the service than the ones on the run at present if the subsidies were increased in proportion. The New Zealand government refused to do this and the company had to be content with terms of the subsidy now in effect.

The San Francisco and Portland Steamship Company

operating in conjunction with the Pacific Coast Steamship Company, has inaugurated a rate between San Francisco, Los Angeles, San Diego and Portland whereby passengers are allowed to stop over four days in San Francisco by purchasing a ticket costing less than that which is charged for a through fare. The present rate is \$27.50, but with the lay-over the rate has been reduced to \$26.35.

A new uniform rate covering the principal items of freight entering the United States from the Orient, has been adopted by the different transportation companies operating in that trade. Matting is one of the heaviest shipments from the Orient, and the rate upon this class of freight has been fixed by the steamship lines at forty cents per hundred pounds. The rate on tea is now fifty cents, that on raw silk \$2, and on rice \$6 a ton. These represent the larger items of merchandise brought to this country from the Asiatic ports.

Following the inauguration of the new trans-Pacific service by the Osaka Shosen Kaisha, the Nippon Yusen Kaisha is expected to fight injurious competition on its North American line to Seattle and Victoria, B. C., at the hands of the Osaka Shosen Kaisha.

The Osaka Shosen Kaisha has borrowed a million dollars on the security of their steamers and will have five new steamers in the service by next January which will entitle them to annual subsidies amounting to \$500,000 from the Japanese government.

Japan has decided to despatch a warship to the Bering Sea on account of the repeated seizures there of Japanese sealing vessels by American and Russian warships.

The Navy Department at Washington has given orders to transfer the gunboat Petrel, at present out of commission at the Mare Island navy yard, to the San Diego branch of the state naval reserve.

Mayors Mott and Taylor, of Oakland and Alameda respectively, and the Chamber of Commerce and Merchants Exchange of Oakland, have indorsed the proposed removal of the drawbridge at Harrison and Webster streets, which is considered a hindrance to the development of Oakland harbor, and the tunneling of the estuary.

It is the general opinion that the government will have to be consulted before work could be started on the proposed improvements, and in case the government would stand some of the cost, which is estimated at something over \$1,000,000.

This project was agitated about a year ago, but the matter was allowed to rest after favorable reports by the committee appointed had been received and preliminary plans had been drawn up. There is no doubt that the project will do Oakland's harbor an inestimable amount of good, and, as the traffic through the drawbridges is becoming more congested every month, the tunneling, with the consent of the government, will doubtless begin very shortly.

In a collision between the navy yard tug boat and the coal schooner Amelia in the Mare Island channel, May 14th, a Chinaman was fatally injured. The tug boat was badly damaged and will be laid up for repairs for several weeks.

The American-Hawaiian Steamship Company will be prepared to handle the influx of sugar from the Philippines to the United States, which will begin as soon as Congress passes a pending bill allowing 300,000 tons of sugar free of duty to enter.

The Nicaragua Government has subsidized the Nicaragua Development Company to run a new steamer service between Corinto in South America and the vari-

ous ports of the Pacific Coast, from San Diego to as far north as Seattle and possibly Vancouver, B. C. The service will be inaugurated within the next sixty or ninety days and will be devoted principally to the fruit exportation trade, although carrying passengers, and the Nicaragua mails. The new company is now negotiating for the charter of a steamer of about the size and capacity of the Pacific Mail steamers Peru or Newport. The products which this company will bring from Nicaragua are now practically all shipped from that country by rail and water to New Orleans at an almost prohibitive rate.

With the advent of the new company shipments will come in direct to San Francisco and other Coast ports at greatly reduced rates.

The terms of the concession are that the new company will construct a wharf and sidetrack to meet the Nicaragua National Railroad at Corinto, construct twenty-five miles of railroad from El Viego to Playa Grande on the Gulf of Fonseca, the estimated cost of which will be \$650,000.

The company has secured a grant of land of 123,000 acres from the government, all its property is exempt from taxation, and it is given the privilege of importing machinery and other essentials free of duty. The native employees of the company are exempted from military duty and taxation. They will pay a bond in the sum of \$10,000 to the Central American Republic.

The following capitalists are interested in the enterprise: R. F. Guichard, a retired Oakland fruit merchant; J. L. Salazar, a coffee planter of Matagalpa, Nicaragua; Charles G. Fowler of San Francisco; Tucker, Lynch & Caldwell, of 53 Post street, and the Hewson-Phillips Company of 24 California street.

The charge of allowing Michael Gabriel to escape from the S. S. Mariposa after having been denied a landing by the Immigration authorities, which was filed against the Oceanic Steamship Company several days ago, was dismissed by United States Commissioner Heacock after the company was admonished to exercise more vigilance.

The gasoline launch J. C. Elliott, en route from San Pedro to Seattle, broke down while bound out to sea and was towed into port again for repairs. The Elliott was in port for fuel at the time she broke down.

The Pacific Mail Steamship Company has been fined \$250 for violating the navigation laws. When the steamer San Juan arrived from Ancon, March 26th, the Surveyor of the Port discovered that no hospital space had been provided for female steerage passengers, although in a report the hospital was said to be located in stateroom No. 7, as the regular hospital room was being used for other purposes. Upon investigation this report was found to be untrue, and the fine resulted. In its report the steamship company applied to Washington for relief, but the department refused to remit.

The Standard Oil ship Acme, which is loading scrap iron for New York at Howard No. 1 wharf, was run down by the Associated Oil tug Navigator. The collision occurred through the misinterpretation of signals by the engineer. The Acme was not damaged, but the Navigator's stem will require slight repairs.

The Associated Oil Company has libeled the tug Relief, which was towing the oil barge Rhoderick Dhu at the time of her grounding at Moss Rock, for \$140,000. It is alleged in the complaint that at 2 o'clock on April 26th the barge, while in tow of the tug Relief, stranded on the rocks at Pintos Point and became a total wreck.

The power schooner Monterey, formerly running in the coastwise lumber trade, has sailed to Behring Sea on a whaling expedition.

The whaling steamer Jeanette is loading at Howard street wharf supplies for the two whaling vessels, the

Herman and Karluk, now in the north, and will sail May 25th. The Jeanette will call at the outer whaling stations.

The Japanese liner Nippon Maru arrived in port May 21 from the Orient, via Honolulu, with an average sized cargo of 2,940 tons, which includes 183 tons of raw silk, 96 tons of matting, 186 tons of tea and merchandise, and 1,350 tons of freight for overland shipment.

The steamer San Mateo cleared for Seattle May 17th to enter the Puget Sound and Alaska run during the summer months, under the management of Schuback-Hamilton. The steamer was idle in the harbor for a year and a half and but lately received extensive repairs.

The Pacific Mail liner Korea cleared May 21st for the principal ports of China and Japan, via Honolulu, with 400 passengers and record cargo of freight for this year. The cargo amounts to 9,000 tons, of which 4,000 tons are for the government at Manila.

The O. S. S. Mariposa arrived May 13th from Tahiti with a general cargo, the principal items of which were 10,473 sacks of copra, 1,924 sacks of cocoanut, 490 packages of vanilla, and other merchandise.

The Japanese liner Tenyo Maru sailed May 13th for ports of Japan and China, via Honolulu, with an exceptionally light passenger list and an average cargo, which included 2,500 bales of cotton and about 1,500 tons of general merchandise.

The British steamer Clan MacInnes arrived May 14th with a cargo consisting of 2,363 bundles of hemp and 8,500 bundles of kapok. The MacInnes will operate in the service of the Australian Mail line, between this port and ports of New Zealand and Australia.

The American brig Aryan, which was dispatched from this port last January, arrived in New York May 13th, 123 days out. She had a cargo of salmon, wine, scrap iron and a ninety-foot Oregon pine pole, which will be used as a flag-pole.

The British steamer Century sailed May 12th for Auckland and Sydney, via Apia, with a general merchandise cargo valued at \$83,742.

The American ship W. H. Macy arrived May 15th, 112 days from Sydney, with a cargo of 2,630 tons of coke. She reached port leaking and her pumps were kept going continually while crossing the Pacific. The Macy has been chartered to load lumber at Portland for Port Natal on private terms.

The steamer Greenwood arrived May 16th with a small quantity of wreckage from the wrecked steamer R. D. Inman.

The Matson steamer Lurline sailed for Honolulu May 14th with cargo consigned to various Hawaiian ports, valued at \$153,513.

The P. C. S. S. Umatilla will leave June 1st for Nome direct with a full complement of passengers.

The American-Hawaiian Steamship Company's steamer Virginia arrived May 20 from Salina Cruz with 8,500 tons of cargo from the steamers Isthmian and Oregonian from New York.

The American-Hawaiian steamer Nebraskan will sail for Salina Cruz with a large cargo of wine and canned goods for New York.

The O. S. S. Alameda sailed May 15th for Honolulu with a mercantile cargo valued at \$154,032.

The French steamer Admiral Hamelin, of the Chargeurs Reunis line, will arrive on May 24th from European ports via Asiatic coast and British Columbia, with a cargo of 7,000 cases of liquors, including 3,000 cases of champagne, 300 tons of marble, 500 tons of sulphur, 2,000 rolls of matting, 4,000 mats of rice and 100 tons of oil cake.

The Norwegian steamer Thor arrived May 20 from Nanaimo with 7,200 tons of coal consigned to the Western Fuel Co.

NORTHERN COAST NOTES.

Portland.

The newly elected members of the Port of Coos Bay Commission met May 10th and Dr. E. Mingus, of Marshfield, was chosen temporary chairman and Henry Sengstacken, temporary secretary. The other members present were W. C. Harris of Sumner, and J. C. Gray of North Bend. As the fifth member, W. P. Evans, was unable to attend because of illness, the matter of deciding who should serve the short and long terms was deferred until the next meeting.

The Kitsap Steamship Company's new steamer Hzak replaced the company's steamer Kitsap on the Sound run between Seattle and Poulsbo, having entered that service May 14th. The Hzak was built at Supple's yards at Portland, and on the trial trip everything proved satisfactory to the owners.

The tank steamer Lansing sailed from Portland to Panama, via Port Harford, where she will receive a cargo of fuel oil for the isthmus. The steamer arrived in Portland with 35,000 barrels of crude oil May 11th from San Francisco.

Before leaving Portland the steamer stocked her larder with about 6,000 pounds of provisions. This is an unusual thing for the oil tankers, which are owned in San Francisco, to do, as the outfitting for a long cruise is usually done at the home port. All the oil tanks running into Portland are equipped with refrigerating plants, which makes it possible for them to stock up with a sufficient amount to provide for a month or more. As Portland receives a greater amount of oil than any other Northern port on the Pacific, the owners of the oil tankers have assured the local merchants that they will be given a chance to compete with San Francisco merchants, who have had a monopoly of this business heretofore.

The fuel oil, which the Lansing will take to Panama will be stored for the accommodation of steamers which run in there to fill their tanks.

The new steamer Annie Comings, built for the Western Transportation and Towing Company, will operate in the pulp trade between Oregon City and Camas, Washington. The steamer was built in Vancouver, B. C.

The California and Oregon Coast Steamship Company of Portland has completed through traffic arrangements with the North Bank railroad between Portland and Coos Bay, beginning June 5. As a result of this change the business of the company will practically double and the company proposes to build another steamer to alternate with the Alliance. Plans for the new steamer were drawn up several months ago, but the letting of the contract was postponed until the negotiations with the Hill line had been brought to a satisfactory conclusion.

The Port of Portland Commission has rented wharfage facilities for the pilotage service, which they take over July 1st, at the Ash-street dock, at a monthly rental of \$100 per month. An arrangement has been made with the O. R. & N. Company at Astoria by which the Commission will use that company's dock, with the privilege of erecting an office on it. The rental will be \$15 for each tugboat and \$10 for each riverboat per month. The compensation of the pilots to be engaged will be \$200 per month.

Seattle.

There is prospects of a rate war between the steamship companies operating on the Yukon and tributaries. Although all the companies have an established tariff, overtures are being made by one company to the customers of the other. Shippers have not reserved any space to speak of, doubtless holding back in the hope of securing better rates.

The first steamer leaves May 29th, and following this departure a large fleet will be dispatched in June.

The freight steamer San Mateo, operating under charter to the Schubach-Hamilton Steamship Company, is the first scheduled to leave Seattle. She will sail May 29, carrying freight only. The steamer Olympia, of the Alaska Steamship Company, will follow at 10 o'clock in the morning of May 30. This same company during June will dispatch the following vessels: Victoria, June 1; Northwestern, June 3; Ohio, June 5, and Victoria, June 21.

From San Francisco the Pacific Coast Steamship Company has the steamer Umatilla scheduled to leave for Norton Sound June 1. The same day the steamer Senator will sail from Seattle, while she will begin her second voyage from Seattle June 26.

Following the San Mateo, the Schubach-Hamilton Steamship Company will dispatch the passenger steamer St. Croix, June 3; the Stanley Dollar, June 8; the Mackinaw, June 16, and the Falcon, June 25.

In addition to these vessels the steamer St. Helens will be dispatched on three voyages under a traffic agreement with the Yukon Trading and Transportation Company. She will leave here on June 1, carrying 1,000 tons for this company, in addition to outside freight.

The Japanese liner Tanyo Maru arrived at Seattle from Hongkong, via Japanese ports, with a cargo of 2,300 tons, valued at \$150,000.

The sailing of the Alaska Steamship Company's steamer Victoria has been postponed to June 2d at 9 p. m. instead of June 1st at 2 p. m., thereby allowing the passengers two days to visit the exposition.

The schedule of the company's steamer Northwestern has also been changed, as she was to leave for Nome June 3d, but the Ohio was substituted for her. The sailing of the Ohio on June 5th has been canceled. This rearrangement of dates and steamers was necessary in order to maintain a regular schedule on the Valdez route following the sale of the Pennsylvania.

The lighthouse tender Manzanita, which is the latest addition to the lighthouse service, arrived in Seattle en route on a tour of inspection of the aids to navigation in the north.

The Manzanita is 190 feet long, of 30 feet beam, with steel hull, iron decks, twin screw, triple expansion engines of indicated horse power of 5,000, capable of developing a speed of seventeen knots, and containing all the modern equipment of the lighthouse tenders. She has an immense steel crane for use in her buoy work, capable of lifting twenty tons. Her deck carries a gasoline boat of 35-horsepower, and she has among other equipment an air compressor for handling the drills and repairing the buoys.

The Pacific Coast Steamship Company's steamer Tampico, which has been lying idle for several weeks, will be placed on the Nome run, leaving Seattle for Norton Sound and Kotzebue on June 10th.

The steamer Senator of the Pacific Coast fleet will lie over at Seattle for two weeks to receive a thorough overhauling preparatory to her being placed on the Seattle to Nome passenger run.

The Pacific Coast Steamship Company's freight steamer *Montana*, which has been disengaged since last July, sailed from Seattle May 21st with a cargo for San Francisco, and will load a full return cargo of freight for Nome. The *Montana* will carry no passengers.

The lighthouse tender *Admeria*, which has been on a tour of inspection off the southeastern coast of Alaska for the last month, has returned to Seattle and reported that the several buoys that were missing have been recovered from the bottom and on inspection it was found that they had been perforated with bullets. Twelve of the missing buoys were replaced or renewed.

The customs receipts for Seattle are now running from \$8,000 to \$12,000 per day, this phenomenal increase being from the duty on exhibits from foreign countries to the Alaska Exposition.

Vancouver, B. C.

For committing a breach of the shipping laws of the Dominion Government the American schooner *Sophia Johnson* will have to pay a penalty of \$400. The schooner entered Vancouver May 10th, about 10 o'clock, left at 4:30 o'clock, without the formality of entering or clearing at the local custom house. While in port the schooner did not discharge or take on any cargo.

The Western Steamboat Company of New Westminster, B. C., is negotiating for the purchase of the steamer *Rothsay* of Vancouver, to replace the *Ramona*, which sank a few weeks ago. The *Rothsay* carries 400 passengers and 150 tons of freight.

Tacoma.

Tacoma's ocean commerce for April shows an increase over the March figures, the total value of exports and imports for that month being \$2,443,699. This shows an increase of about \$70,000 over March. The report shows the total coastwise shipments for April were valued at \$960,000, and the total foreign shipments at \$356,000. Foreign imports were valued at \$499,310 and coast wise receipts at \$638,305.

Lumber shipments for April exceeded those of March by 5,000,000 feet. The coastwise shipment totaled 6,407,568 feet and the foreign 7,814,824 feet. From 32,000 barrels of flour shipped foreign and coastwise in March, the shipments increased last month to 47,000 barrels. Of this amount 26,120 barrels went to foreign ports and 21,011 went coastwise. The coastwise shipments of flour are larger than in several months past.

The names of the new boats building for the Weir Steamship Company, Seattle, will be the *Lucerig*, *Orteric*, *Mineric* and *Roseric*, respectively. The first two named will operate from Seattle to the Orient and the last two will operate on the Atlantic side.

The announcement contains a list of twenty-eight cargo steamers and eighteen sailing vessels now under the Weir flag, in addition to the new steamers under construction. The list shows the last reported position of the fleet under date of May 1st. In the bank line of sailing ships are the following, many of which are well known here: *Beechbank*, *Cedarbank*, *Comliebank*, *Ellisland*, *Forthbank*, *Gantock Rock*, *Hawthornebank*, *Isle of Arran*, *Levernbank*, *Mennock*, *Oliverbank*, *Poseidon*, *River Falloch*, *Sardbana*, *Springbank*, *Thistlebank*, *Thornliebank* and *Trongate*.

In the Australian Mail line, operating from this port and the Sound to Australia and New Zealand are the *Century*, which left here April 30th for Sydney; *Invertag*, which takes the steaming date of May 28th; *Clan MacInnes*, steaming June 25th, and *Tymeric*, leaving here July 30th.

The Alaskan Pacific Steamship Company is establishing a local agency and making arrangements to place *Bellingham* on their schedule as a regular port of call for all their steamships.

The steam launch *Lieut. J. A. Gurney*, which was recently sent to Seattle as the deck load of a San Francisco steam schooner, has gone into commission and is now serving Fort Ward as a tender in the quartermaster's department. She does not act much in the capacity of a freighter, but is used extensively by the officers of the fort. She is a new boat and was built in California. Her length is sixty-five feet and, being equipped with powerful engines, she is able to make fast time.

Negotiations are under way by the Puget Sound Tugboat Company, it is understood, to sell or lease the tug *Tatoosh* to the Port of Portland Commission. Captain W. H. Plummer, general manager of the tugboat concern, has been in the city for the purpose of ascertaining what sort of craft the port requires to assist the *Wallula* at the mouth of the Columbia. The terms on which she can be secured will probably be made known at the next meeting of the commission.

Specifications are being drawn up, it is said, for the construction of a river towboat for the Port of Portland to operate on the Willamette and Columbia rivers in conjunction with the *Ocklahama*. But it will probably be some time before a contract for building her is awarded. In the meantime, another tug to assist the *Ocklahama* will probably be chartered as needed until the proposed new boat is ready for operation.

At present the *Tatoosh* is under charter to the O. R. & N. Co. and has been towing ships in and out of the Columbia river under the management of that corporation for a number of years. The claim has often been made that she is one of the best tugs for work at that particular point on the Pacific Coast. In the event that she is secured by the Port of Portland she may be converted into an oil burner. A dozen other tugs are owned by the Puget Sound concern, and there has been some talk that one of them may be purchased or chartered.

The S. S. *Iroquois* of the Straits Steamship Co. arrived in Seattle this morning about 9 o'clock towing the *Lydia Thompson*, which left last night for Port Townsend and other down Sound ports in place of the disabled S. S. *Whateom* of the same company. The *Whateom* was towed into port the night before by the tug *Wanderer*, having broken her rudder at Port Williams and forced to lie there until assistance came. The *Thompson*, which was substituted for the *Whateom* last night, with the belated mail and passengers, apparently ran into the same hoodoo, for she broke her propeller and was helpless until picked up by the *Iroquois* of the Vancouver run. There will be another boat sent out in place of the *Thompson* tonight, but Port Angeles will be unable to have a boat or mail today.

The Alaska Pacific Steamship Company of Tacoma has concluded negotiations with the Chicago, Milwaukee and Puget Sound Railroad Company whereby the two companies will work in conjunction in the handling of freight to and from California. Up to the present time the Alaska Pacific Company has had no traffic arrangements with any railroad, but as soon as the agreement with the Puget Sound Company goes into effect shipments will doubtless increase to such an extent that it will necessitate securing more boats.

SOUTHERN NOTES.

At a meeting of the directors of the Chamber of Commerce of San Luis Obispo on April 29 a committee was appointed to interview the merchants and see what support they would give an independent steamship line which would stop at Avila, giving a service of every four days. At the present time the only steamship company stopping at Port San Luis gives a service of every eight days.

An effort was made not long ago to close Port San Luis as a port of entry, an order having been received by the collector of the port at San Francisco from Washington to investigate the amount of business transacted at Port San Luis, with a view of discontinuing it as a port of entry.

After an investigation a report was forwarded to Washington which resulted in an order for the maintenance of a port of entry at San Luis.

The oil barge Rhoderick Dhu, which ran on the rocks at Moss Beach, April 26th, while in tow of the tug Relief, is being dismantled with difficulty, and but very little salvage of the vessel (not more than \$5,000) valued at \$150,000, can be saved. The jagged rocks that she is resting on are tearing large holes in her and the breakers pounding incessantly have imbedded the hull deeper in the sand. She is listed far to starboard and a high tide has almost submerged her. If it were possible to float the barge there would be no difficulty in towing her to a safe anchorage, as the immense oil tanks with which she is equipped would allow her sufficient buoyancy to float.

The Rhoderick Dhu was an English built ship and formerly operated on a passenger run between England and Australia until five years ago, when she was engaged in the sugar trade between San Francisco and Hawaii, when the Associated Oil Company purchased her and converted her into an oil barge.

The German ship Adolf, en route to Puget Sound from Ipswich, will proceed to St. Vincent and take the cargo of the Norwegian bark Skjold, which arrived in that port in distress.

San Pedro.

The Southern Pacific is contemplating improvements on its Fifth-street slip at San Pedro to facilitate the handling of the Pacific Coast Steamship Company's business.

Wellington.

The Banning Company is resisting the efforts of the city to complete the municipal harbor work to Water and Fries streets.

The city has started to fill in Fries street to lead down to the harbor improvements at Water street. On the east side of Fries street, the Bannings and others claim title to about ten acres of land, and under this claim they filed application with the War Department for permission to build a wharf inside the harbor lines, just south of Water street. This application, together with protests from municipal bodies against it, was recently forwarded to the War Department at Washington.

The Wilmington trustees and others investigated the Banning claim to the property and decided that it was not valid. No patent, it is said, was ever issued to it, and it is based on a squatter's claim purchased from James McFadden, who maintained a small wharf at this point many years ago. It is said there is not even a tideland patent to it such as that covering the other tidelands claimed by the Banning interests.

City Engineer Dessery states that the work the city proposed to do at that point is to fill in the street, which is covered with water at high tide, and in order to

prevent the dirt going over on to the adjacent tidelands, which the Bannings claim, wooden bulkheads were to be built.

San Diego.

Work on the construction of the San Diego naval coaling station will start in a few weeks. Two sets of plans have been forwarded to Admiral Manney, chief of naval construction on the Pacific Coast, by the Navy Department, and the one best suited for local conditions will be adopted.

That the appropriation of \$200,000, made by the last Congress for the completion of the local station, will be inadequate, even for the present work contemplated, is the belief of Admiral Manney. When asked as to the amount of money to be expended on the work, the admiral said:

"I have not been officially notified of the exact amount of the appropriation made by Congress that will be allotted to this harbor, but from information gained unofficially, believe it to be \$200,000.

"The cost of the work as outlined in the plans on which we are now commenting has been estimated by the Naval Construction Bureau at from \$215,000 to \$220,000, and of course this amount will be expended.

"If the direct appropriation made by Congress for this special project is insufficient, the difference will have to be squeezed out of some other general appropriation. This can easily be done by taking the cost of coaling machinery and equipment, which is included in the estimate, out of the general appropriation for coal and transportation. We can always do something under this appropriation.

"I do not know that the work will be let to a single contractor, but am of the opinion that it will be. Sometimes jobs of this character are split up among different contractors when the money for all of the work is not forthcoming at one time or for any other obstacle which the department has to overcome, but in this instance, when the full amount of money is appropriated, I see no good reason why one firm should not receive the contract for the entire construction work.

"You can say for me that I shall forward the working plans to the department within a few days, and am confident that I shall hear very soon from Washington to the effect that the construction bureau has called for proposals, and the work on the San Diego coaling station will be begun immediately.

"In this San Diego can consider herself favored. I have just returned from an inspection trip up the coast as far as Seattle. On the way back to San Diego I stopped over at Mare Island, and was informed there that the proposed construction work at California City Point had been indefinitely postponed."

All of the construction work on the foundations and superstructure of the local coaling station was completed out of the first appropriation under the direction of Captain Almy, who was relieved by Admiral Manney.

A crew of stevedores are now working on the Sybil Marston, wrecked at Surf two months ago, to save 250,000 feet of lumber, which comprised part of the cargo of the vessel. The machinery of the Marston has arrived in San Francisco.

The new pier which is to be built at the foot of Marine street, Ocean Park, will be completed in a month's time. The structure will be supported on concrete piling.

NOTES.

The Union Steamship Company of Vancouver, B. C., subsidized by the Dominion Government and operating

a service between Vancouver, B. C., and Sydney, Australia, has offered to put three steamers of the Marania type on the run, thereby reducing the time between Vancouver and Sydney to twenty-one days, provided the Dominion Government makes a substantial increase over their present subsidy. The present mail subsidy held by the company expires shortly, and it is probable that the Canadian Government will continue the rate of subsidy for a period of years, at the same time refusing to increase the present subsidy under any consideration.

The report of the Dominion Government drydock at Victoria, B. C., for the year ending March 31st, 1909, shows that during the year twenty vessels entered the dock, and that the total fees collected amounted to \$20,583.36 for the year. Two of the vessels were British naval ships and were docked at reduced rates and a third was the Dominion survey steamer Lillooet.

The Glenfarg entered dock twice, the first time being for ordinary repairs and the second for repairs after going ashore in the entrance to Vancouver harbor. The Fukui Maru that was rammed in Vancouver harbor was ten days in the dock for repairs.

The following is the complete list of vessels docked, with the dates of entering and leaving, and the total charges collected:

- S. S. Taunton, April 3rd to April 4th, \$201.20.
- S. S. Agapanthus, April 27th to April 28th, \$400.00.
- S. S. Victoria, May 18th to May 19th, \$512.20.
- S. S. River Fourth, May 30th to May 31st, \$401.20.
- S. S. Suveric, June 2d to June 4th, \$873.20.
- S. S. Greenwich, August 5th to August 6th, \$401.20.
- S. S. Indravelli, August 10th to August 11th, \$407.70.
- S. S. Thyra, September 14th to September 16th, \$515.60.
- S. S. Admiral Exelmans, September 17th to September 18th, \$561.00.
- H. M. S. Algerine, September 29th to November 16th, \$1,742.00.
- S. S. Reggia, water supplied, \$1.40.
- S. S. Fukuj Maru, November 18th to November 28th, \$1,747.60.
- D. G. S. Lillooet, November 30th to December 2d, \$350.00.
- S. S. Eir, water supplied, \$4.90.
- S. S. Glenfarg, December 10th to December 22d, \$3,454.70.
- Ship Lord Shaftesbury, December 23d to December 24th, \$489.10.
- S. S. Glenfarg, December 26th to February 7th, \$5,979.20.
- S. S. Agapanthus, February 12th to February 14th, \$577.10.
- H. M. S. Egeria, February 19th to March 9th, \$685.76.
- Dredge Fruhling, March 15th to March 16th, \$551.10.
- S. S. Princess Charlotte, March 22d to March 24th, \$527.20.
- S. S. Admiral Duperre, \$200.

The report of the customs business for Puget Sound district for April shows imports valued at \$1,639,957, and exports valued at \$1,700,840. In the trade with foreign countries Japan leads the others by the usual wide margin, the imports from that country being valued at \$853,670 and exports to Japan at \$454,266.

The Board of General Appraisers has ruled that

wines and liquors cannot be classified as household effects.

In making this ruling the board quotes as follows from an opinion handed down by the Federal Court:

"The use of the word 'similar' in paragraph 504, tariff act of 1897, limits the articles that may be admitted free of duty as household effects to such as are similar to books, libraries and furniture.

"Wines and liquors are not household effects 'similar' to books, libraries and furniture, and are therefore not free of duty under paragraph 504."

General Appraiser Hay, who wrote the opinion of the board, makes the following comment on the case at issue:

"The question presented by this case is the admissibility of certain wines and other spirituous liquors free of duty and paragraph 504 of the tariff act of 1897. These wines and liquors were imported by the protestants along with furniture and other household effects which were admitted free under said paragraph, but duty was assessed upon the wines and liquors. The protestants contend that the wines and liquors are household effects within the meaning of the tariff law and cite numerous authorities to show that similar merchandise has been held by the state courts to be household effects.

"If the word 'similar' had not been introduced into this paragraph of the law by the later tariff enactments, the contention of the importers would have a firmer basis. The use of this word, however, limits the articles that may be admitted free of duty under paragraph 504 to such household effects as are similar to books, libraries and furniture, the words specifically enumerated in the paragraph. This limitation has been but recently placed upon the law by the Circuit Court of Appeals in United States vs. Grace (166 Fed. Rep., 748; T. D. 29500). Following that decision, we are of the opinion that wines and liquors are not household effects similar to books, libraries and furniture. The protest is therefore overruled."

Relative to a buoy which was set adrift in the Arctic Ocean for scientific purposes eight years ago the following interesting report is made: The Norwegian Meteorological Institute, early in January, received a letter from Soerøe, Denmark, stating that a buoy which was driven ashore on November 3, 1908, contained a notice to the effect that the buoy was set adrift on July 24, 1900, near Cape Bathurst, latitude 70 degrees 39 minutes north, longitude 127 degrees 30 minutes west, and about 440 kilometers (284 miles) northeast of the Mackenzie river. It is believed here that the buoy, which thus drifted more than eight years, was carried through the polar seas between Greenland and Spitzbergen. There is no doubt this buoy is one of the 35 set adrift in the Arctic sea, north of Alaska during the years 1899-1901, with the object of securing data as to the direction and speed of the circumpolar currents. These buoys are known as the Bryant-Melville buoys, and the experiment was undertaken and carried out by the Geographical Society of Philadelphia. They were set adrift by the captains of the American steam whalers, the date, location and ice conditions being reported to the society.

Authentic news has been received that Japan intends to send a squadron to Bering sea this season to protect the sealers from Yokohama, Tokio, Nyigata, Hakodate and other ports. The action was taken because of the many petitions from the sealing interests of the unwaranted seizure of sealers for alleged poaching.

A letter received at Victoria, B. C., says: In view of

the fact that Japanese sealers are seized every year in and about the Bering sea on charges of poaching, the Japanese Government is considering proposals to send warships there during the sealing season for the protection of the sealers. This appears a somewhat dangerous proceeding, likely to involve the risk of international trouble, and many prominent officials are of this opinion. The request for the sending of Japanese warships is being made by the sealing interests.

The United States transport Dix, which is en route from the Philippines to Tacoma, is burning coal taken from the Government coal mines at Liqua, Batan Islands. The Dix is the first transport to burn Batan coal and the result of the experiment will be sent to Washington, where it is awaited anxiously, as the Government has spent thousands of dollars in developing the Batan mines.

The quartermaster's department first commenced experimenting with the Batan fields in 1902, and the work has been given up two or three times. In 1907 operations were renewed with vigor, Congress having made an appropriation to carry on the work to a definite end. Mining experts, miners, mine carpenters and laborers were sent out from the United States, and an earnest endeavor made to develop the mines, with the result above mentioned. For some time interisland vessels have been burning the coal with marked success, the navy reporting that the coal is equal, and, in some respects, superior to Japanese coal.

At the present time all United States transports are required to call at Nagasaki, homeward bound to take coal for the trip across the Pacific. If the Batan coal proves good this will be eliminated in the future, and undoubtedly the quartermaster's depot at Nagasaki, which, by the way, is the only office of the kind Uncle Sam has on foreign soil, will be abolished.

There is an interesting story back of the establishment of this depot. During the Boxer uprising it became necessary to place a temporary depot there. When the Japanese war scare came up some years ago an inspector general of the United States service suddenly discovered that no formal permission had been obtained from the Nippon Government for the establishment of the office. At that late date it seemed unwise to proceed in the usual way to have the permission confirmed by the Japanese State Department, and considerable correspondence was finally had before the matter was adjusted by the United States ambassador to Japan.

Regarding the Batan coal mines, the field belonging to the Government lies on the eastern side of the island, which has been set aside as a military reservation. The western end belongs to an American commercial company, which is already mining coal with great success, and the owners thereof will some day reap rich rewards.

Capt. Rees, commandant of the naval station at Honolulu, received a cablegram from Washington asking him to secure figures, for the bureau having the matter in charge, as to the cost of material here for the construction of the barracks for the navy at Pearl harbor naval station.

Pursuant to this cable, Capt. Rees called into conference a number of local contractors and builders. The bureau of construction is getting these figures in order that in drawing up plans and specifications it may meet conditions as they exist here in Honolulu. It wants to learn the difference in expense of brick and concrete.

There is now \$180,000 available for the construction of the buildings of the naval station, and the inquiry of the bureau, coming by cable, seems to indicate that no time is to be lost in forwarding the construction. The builders were closely questioned as to the conditions of

labor and material under which they operate. Capt. Rees will forward the result of his inquiry by the outgoing Mongolia.

SHIPBUILDING IN JAPAN

New Tonnage During 1908 Comparatively Small.

The shipbuilding industry of Japan during 1908 is reviewed by the "Japan Advertiser," of Yokohama, as follows:

The Japanese dockyards were occupied mainly in fitting out vessels built in previous years and in the reconstruction of ships captured in the late war; their new tonnage is therefore comparatively small. The armored cruiser, Ikoma, of 14,000 tons, was completed and commissioned early in 1908, and her sister ship, the Ibuki, fitted with Curtis turbines, is ready for speed trials. In mercantile work perhaps the most notable launch was that of the large floating dock at Kobe, by the Mitsu Bishi Company. This dock was built entirely of home-made steel. The two 8,600-ton steamers launched by the Kawasaki Company for the Nippon Yusen Kaisha are the largest vessels yet built by this firm, and the volunteer fleet steamer Sakura Maru, by the Mitsu Bishi Company, is the first ship fitted with turbines made in Japan. New contracts have practically ceased since the beginning of 1908, and the trade is now becoming seriously depressed. At the Mitsu Bishi Works eight vessels, of 62,000 tons and 52,100 indicated horsepower, are building. Among these are a third turbine liner for the Toyo Kisen Kaisha, the second turbine for the Japanese volunteer fleet, and six other steamers. Most of these will be completed in 1909. The Kawasaki Company have 13,200 tons of new work, including two cargo steamers of 12,000 tons and a few torpedo craft for Siam, and the Osaka Iron Works have an auxiliary sailing ship and a few dredgers. A large number of oil-motor fishing smacks are being built in Japan, and it is stated that more than 200 of these craft will be afloat in the spring of 1909.

The following statement shows the number of vessels and their tonnage and horsepower, constructed in the Japanese shipyards in 1907 and 1908 (the number of vessels for 1907 not being given in the returns):

Shipyards.	1907	
	Tons.	Indicated horsepower.
The Imperial Dockyards...	53,100	88,500
The Mitsu Bishi Works...	37,698	55,020
Kawasaki Dockyard Co.	17,417	26,900
The Osaka Ironworks...	6,729	4,981
Ishikawajima Co.	1,364	1,401
The Ono Shipyard	702	870
The Fujinagata Shipyard...	137	250
The Uraga Dock Co.	89	305
Other firms	10,516	9,501
Total	127,752	187,728
Shipyards.	1908	
	Vessels	Tons horsepower
The Imperial Dockyard	2	760
The Mitsu Bishi Works...	4	32,250
Kawasaki Dockyard Co.	9	24,410
The Osaka Ironworks	23	7,720
Ishikawajima Co.	12	1,388
The Ono Shipyard	3	1,130
The Fujinagata Shipyard	1	417
The Uraga Dock Co. .	5	367
Other firms	132	10,816
Total	191	79,258

In order to encourage the development of the Canadian fishing industry on the Pacific Coast, where the bounty

system prevailing in the Atlantic maritime provinces does not object, the Dominion government recently passed an order in council granting a rebate of one-third of the express rates on all shipments of fresh fish billed from here by Canadian fishing companies or Canadian fishermen to any point in Alberta, Saskatchewan and Manitoba. This rebate or bonus applies to any variety of sea fish caught in Canadian waters, including salmon, halibut, oysters, crabs and clams.

Less than a fortnight ago the Dominion government in pursuance of the new policy of conserving the Canadian market for Canadians, issued peremptory instructions forbidding the New England Fish Company passing for customs entry fish to be sold in Canada. This order does not apply to any fish imported from the United States in the usual way. For seventeen years prior to its enforcement the New England Fish Company virtually enjoyed a monopoly in this and other Canadian centers by reason of its exceptional facilities for handling large quantities and on account of its long established trade conditions. Despite the recent prohibition, the American corporation is still a factor in the Canadian market, the halibut being imported from Seattle, and paying the usual duty of one cent a pound.

CHARTER MARKET.

Several changes have been made in coastwise lumber freights, with an inclination to stiffer rates.

Puget Sound to San Francisco is being done at from \$3.25 to \$3.50 and to Southern California at from \$4 to \$4.25.

The lower figure has been the asking price for several weeks since the late slump in rates. The higher figure is the same as that which prevailed during most of the winter. The general tone of the market is better and owners are hoping that freights will continue upward until they reach a basis on which business can be done with some degree of profit.

Notwithstanding the better feeling in the coastwise market, practically no fixtures were made last week. However, offshore freights are a trifle firmer and several vessels have been taken for foreign ports.

Tonnage owners have no difficulty in securing union rates, with the prospect for a heavy crop and large export demand. All the available French, and all but two available German ships have been engaged. The British owners are evincing a tendency to hold out for a better rate. The engagements for the most part are for the union rate, or slightly better.

The majority of the fall wheat tonnage engaged is headed for the Columbia river, amounting to 68,818 net tons. En route for Puget Sound ports are vessels with a total tonnage of only 29,953 tons. Portland's list is more than double that of the entire Puget Sound district. Several of the craft on the Portland list were taken with the option of Puget Sound loading, but the same condition will apply to craft on the Sound list and things will about balance.

The tonnage already chartered for outward loading at Portland will have a carrying capacity of close to 4,000,000 bushels of wheat. Practically all this will set afloat by the first of the year.

The amount of tonnage en route to this Coast is larger than it was some time ago, and there is the belief that if grain rates show a disposition to remain steady, owners of tramp vessels will not hesitate to send their tonnage to the North Pacific with the expectation of securing homeward grain charters. Rates for steamers always range somewhat higher than for sailers, and some exporters prefer to pay 30 shillings for steam rather than 27 shillings 6 pence for sail. The reason is that a steamer can deliver cargo in the European market in three

months, while the average sailer requires five or six months. On a market that is fluctuating greatly the difference in time of delivery is no minor consideration.

American steamer San Mateo, on time charter to Schuback & Hamilton of Seattle, for Alaskan run.

Most of the sailing now headed for Portland will command the union rate of 27s 6d, although a large ship was offered at 25s last week.

The report current that the German schooner Emilie had been rechartered to load lumber in British Columbia for the west coast of South America, was denied by Schramm & Co., of Bremen, the owners of the vessel. The Emilie will be held on the expectation of securing a fixture in the season's wheat fleet in advance of the present union rate of 27s 6d.

French bark Marechal de Moailles, general cargo, Antwerp to Portland; rumored that she will load new crop wheat for return trip to Europe. American schooner Inca, lumber from Columbia river to Sydney, Australia, at 30s. French bark Bougainville, general cargo, at Swansea, Wales, for Portland; rumored that she will load new wheat crop for return trip to Europe. British bark Jordan Hill, new crop wheat loading, Portland to European port, private terms. French bark Max, general cargo, London to Vancouver. German ship Parnassos, fall wheat, Portland to United Kingdom at 27s 6d. American ship Dirigo, sugar from Honolulu to New York, chartered prior to arrival. American barkentine Retriever, lumber, from Grays Harbor to Guaymas. Norwegian steamer Svene, merchandise, Portland to Shanghai, on time charter at \$1,000 per month.

The following schooners load lumber: E. B. Jackson at Gray's Harbor for Guaymas, A. B. Johnson, Puget Sound, for Guaymas, \$5 net, and J. W. Clise do for Callao.

S. S. PENNSYLVANIA.

The frontispiece is of the S. S. Pennsylvania, purchased by the Pacific Mail Company for the Panama line, in which service she is expected to leave for Ancon, via Mexican and Central American ports on June 7th.

The Pennsylvania was built by Cramp & Sons at Philadelphia in 1872, and is an iron screw steamer with two decks and a spar deck.

Until recently the vessel was the property of the Alaska Steamship Co., running between Seattle and Alaska.

Her dimensions are: Length, 343 feet, beam 43 feet, depth of hold 24.9 feet, depth to spar deck 31.9 feet, gross tonnage, 3,343, net 2,567.

The Pennsylvania is lighted with electricity, and equipped with wireless telegraphy, being the only vessel of the Pacific Mail line equipped with the latter. The vessel is propelled by twin engine triple expansion, with cylinders 23-36 and 60 by 36-inch stroke, which were new in 1891, and develops about 1100-horsepower with 160 pounds of steam.

The consideration of the transfer is not definitely known, but is reported to be about \$200,000, which would seem to be high but for the fact of the new engines and boilers, and that generally the ship is in good condition.

The early history of the ship is a long series of disasters to the crew, losing 43 lives in three years, after which her luck turned and since that time has behaved normally. Her maiden voyage was from Philadelphia to Liverpool in May, 1873. In February, 1874, in going from Liverpool to Philadelphia, she had the misfortune to lose her captain, first mate, second mate, quartermaster and one seaman by a sea taking away the bridge at the change of watch.

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Argument in favor of an American merchant marine is so obviously sound that only the blind can fail to see its truth; blind, indicating neither organic nor physical ailment. The breadwinner voting population of the United States have little or no interest in the subject, except as the same is made a campaign issue. The need of a powerful and efficient navy was brought home to us in 1898, and few failed to recognize the unenviable position we occupied; the problem was solved by a universal demand for a fighting squadron, the acquisition of which, at the time, was more remarkable than its achievements in battle, recent wonderful tour of the world, or the fact that it was composed of American ships, built in American shipyards by American citizens.

The building of a navy is one question, the maintenance of a navy is another. The first required the transportation of material and supplies by railroad, and the employment of American workmen for building. Capital and labor had a common cause, and we acquired a navy. The second question involved direct opposition to railroad transportation and industrial occupation of American workmen, a greater inducement than the navy could offer. The Treasury had to pay the bills for maintenance of a navy; again a common cause existed and the cry went forth that the people's money was being squandered. And so what may appear on the surface as arguments for or against the building or maintenance of a navy may be distorted to suit the various interests involved. We are all agreed on the question of building a navy; we are not all agreed on the question of its maintenance.

Of yet greater importance to the United States is the question of a merchant marine, and one in which the navy will not participate. Every appropriation of money made on the floor of Congress has returned ten fold to the masses in this country, whether made for the building of a navy, the subsidizing of a railroad, the prevention of an epidemic, the reclamation of arid lands, and innumerable other objects which have made possible the present standard of living of our citizens. Over sea traffic alone remains the one neglected industry, one which has been

attacked from every possible point of view, one which constitutes the inexorable law of national supremacy, one which will not require the use of guns to determine. The war of our commercial extension is being fought, we are less qualified to engage in the battle than at any time in our history. We are pitted against the world powers, against those who have not or do not require a navy. Internal strife is our greatest foe.

TRADE POSSIBILITIES.

Morocco is almost entirely inhabited by Moors, approximately numbering 65,000 people. In cooking, vegetable oil is extensively used, the most popular of which is olive oil, the best grade of which commands a high price. The lower grades are selling at higher prices than are obtained for cotton-seed oil. They have a strong flavor, to remove which, when cooking with them, the Moors use some article such as a piece of potato. The dealers heat the cotton-seed oil to clear and make it more liquid. The large dealers say that some of the Moorish shopkeepers are familiar with cotton-seed oil, but most of it goes to the consumers under some other name, or is mixed with olive oil. They further say that the Moor is so conservative it is difficult to get him to buy anything new and that to get him to use cotton-seed oil, as such he must gradually be educated to it. However, cotton-seed oil seems to be taking hold in Tangier. About 2400 barrels were handled by the dealers last year. This year on account of the poor olive crop they anticipate handling more. The olive crop cannot be depended upon to supply the needs and it is therefore necessary to import other edible oils. Nearly all of the cotton-seed oil sold comes from England and France, England supplying most of it. This is mainly due to the fact that the United States has no direct steamship connection with Tangier.

Sugar, cotton clothing hardware, building materials, candles, cement, groceries, lumber and flour are also articles used, and worthy of the attention of American merchants. Most of the houses are built of plaster and tilings. Some tarred-roofing material is also finding its way into this market, principally from the United States, but shipped to Spain and reshipped. American hams, hardware, flour, etc., come through other countries.

The total imports into Morocco as near as can be estimated from figures available, are about \$15,000,000 annually. The bulk of this sum is divided among England, France and Germany, in the order named. These countries are keen bidders for this business and are energetic in establishing footholds in Morocco. They have direct steamship connections, agents on the ground pushing their goods, and drummers who come regularly to display samples and study the needs of the people.

Our complete organization for the presentation of all matters in the interest of American merchant marine is demonstrated in the present issue. We are grateful indeed to the various departments of our National Government and the officials in charge of same, also State and municipal officers of the Pacific Coast and our insular possessions, for the many courtesies extended to us, without the aid of which it would have been impossible to have brought Pacific Merchant Marine to its present state.

We have taken but a preliminary step for the rehabilitation of the American merchant marine, and take pardonable pride in the result of our efforts.

To those who are sincere in the development of over-sea traffic we freely grant the columns of this journal, and invite all correspondence tending to increase American commerce on the high seas.

We acknowledge the substantial support of our sub-

scribers and advertisers, and assure them of a continuance of our aggressive policy in behalf of the marine industry.

As previously announced, we will inaugurate the semi-monthly publication of Pacific Merchant Marine on Saturday, June 5, 1909, and publishing same thereafter on the first and third Saturday of each month. The editorial rooms are being enlarged and thoroughly equipped. Telephone communications to Mission 934.

SHIPBUILDING NOTES.

Work at the Moore & Scott Iron Works Shipyards.

The U. S. A. T. Buford is having repairs made to her engine, boiler and hull, amounting to \$12,683. The contract was let to this firm, their bid being the lowest. The vessel will be removed from her present berth at Folsom street wharf to the firm's yards in Oakland Creek, where she will remain until the completion of the repairs.

Repairs to the U. S. A. T. Logan, amounting to about \$5,000, are being carried on while the vessel is lying at the Folsom-street wharf. This firm not only received the contract for the engine, boiler and hull work, but also received the contract for the carpenter and joiner work. In the specification for the carpenter and joiner work the refrigerating rooms will be entirely overhauled, so that when the vessel leaves this port on her next trip this department will be in perfect order.

The steamer Napa City, which sank some few days ago in Oakland Creek, has been raised and placed on the Moore & Scott Iron Works ways for repairs and overhauling. The vessel was raised with lighters and towed at once to the ways.

The Barkentine James Tuft has been placed on the dry dock for cleaning and painting and minor repairs.

The barkentine Muriel was on the dock being cleaned, caulked and painted.

Union Iron Works.

U. S. A. T. Logan on Hunters' Point drydock Tuesday and Wednesday for cleaning, painting and examination of the hull.

Steam schooner J. M. Marhoffer at works for cleaning and painting.

Steam schooner Yosemite on the floating dock to be fitted with a new wheel.

The P. M. S. S. Korea at works for general overhauling.

P. M. S. S. Pennsylvania having repairs made at Pier 42.

Miscellaneous work on the P. M. S. S. Newport.

Steam schooner T. E. Dorr at work May 20th to load locomotive on board to be shipped with secured contract for entire hoisting machinery for Pier No. 36.

George W. Kneass.

Shipping twelve pleasure skiffs to the Russian River, 14 feet in length and 4 feet beam.

Cryer.

Overhauled police boat Patrol.

C. W. Smith.

Repairs completed on the government tug Madrone.

Work on 25-foot launch to be used in fishing at Santa Cruz, is well under way.

Gorham Engineering Co.

Launch Peerless, built for the representative of the Gorham Rubber Company, at Los Angeles, arrived at San Pedro May 21st.

Seattle.

The three cruisers comprising the first division of the Pacific fleet, at present en route from San Francisco to

Puget Sound to attend the Alaska-Yukon-Pacific Exposition, will proceed to Bremerton navy yard for repairs on June 10th. The second division of the Pacific fleet will return to San Francisco bay for repairs at Mare Island navy yard.

The Kingfisher, recently built in Seattle for duty about the canneries at Blaine, has had her final trial trip and will be placed in commission immediately. She is 65 feet in length, 15 feet 6 inches beam, 7 feet draft and of 27 tons burden. She is equipped with a 75-horsepower gas engine and was designed to develop a speed of twelve miles.

A launch for work or play was launched at the Stetson-Post mill of Seattle last week. The vessel is a combined launch and towboat, sixty feet in length, with a twelve-foot beam and equipped with an 85-horsepower Union engine. She is finished in Australian hardwood and will be available for towing purposes or for a pleasure cruise about the Sound.

The contract for the building of a police patrol boat for the Port of Portland has been awarded to Captain O. P. Graham. She will be 36 feet long and 7 feet beam, with a contract speed of 12 miles. The boat will cost \$2,350, and will be completed in 60 days.

Portland.

The new drydock now in course of construction for the Oregon Drydock Company, will be completed toward the middle of June. The contract for the machinery for the drydock is held by the Willamette Iron and Steel Company, and the contract for wings, pontoons and other woodwork was awarded to the Portland Shipbuilding Company.

The structure will be 345 feet in length, 76 feet in width and construction to accommodate vessels up to 18-foot draft, which is amply sufficient for the coasters and those engaged in the off-shore trade. The company operating this dock do not intend to compete with the Port of Portland dock, as all the smaller craft will be handed to them. The present rates for docking will be maintained. The dock will be capable of handling any ship up to 4,000 tons' capacity.

The steamer G. K. Wentworth was at the Portland Shipyards last week to receive a general overhauling and a new shaft. The shaft was cracked some time ago and it was decided to equip her with a new one before it broke off at a critical moment, disabling and exposing her to some danger.

The new steamer which is being built for the Star Sand Company at the Portland Shipyards, will be ready for launching in a week. The name of the steamer, which will be operated as a towboat on the river, will be the Chris Minsinger.

United States Attorney Devlin has obtained a writ of error from Judge De Haven, in the case of the five indictments against the Pacific Mail Steamship Company for the violation of the interstate law. At the conclusion of the recent trial Judge De Haven decided that the ocean carriers did not come under the jurisdiction of the Interstate Commerce Commission, and the alleged violation did not occur until the freight in question was landed on United States soil.

Fred Klarman BOAT BUILDER
Yards & Marine Ways, Tiburon, Cal.
Phone Main 201

San Francisco Office, 211 Buckley Bldg., Market & Spear Streets Phone Kearny 4731

Pleasure and Commercial Craft of Every Description Built. Yawls and Skiffs in Stock.
Repairing Promptly Attended To

Mammoth Marine Machine Now Afloat.

The Boshke rotary steam shovel dredger was launched on the 10th of May from the Pacific Shipyard and Ways Co. at Alameda Point, California.

The hull of this dredge, which is 163 feet long, 40 feet wide and 9 feet deep, is of the usual oblong form, but has its end cut out to form a recess or open well in which revolves the dredger wheel, fifty feet in diameter.

The dredger wheel is built up of side annular plates connected to the shaft of the wheel by the spokes, which are braced together by the rings, cross pieces and diagonal ties.

The radial supports for the buckets rest upon alternate cross pieces and extend from the hub of the wheel at the shaft to the buckets. These supports have had to be made

so arranged that they swing from the center to raise and lower the bucket wheel.

The doors of the buckets have a trip stud on them which, when it arrives at the proper position to discharge the contents, engages with a lever operated by a spring in such manner that the door is opened and the bucket is discharged into the conduit and thence into a hopper.

From the hopper the material is discharged onto a belt conveyor driven by electric motors, which convey the material to the shore by swinging the dredger on its spud, for the purpose of building levees.

After the levees are finished the material is discharged into pumps and pumped out through a pipe line to the fill in the same manner as it is done in the ordinary suction



LARGEST DREDGER IN THE WORLD.

excessively strong to withstand the severe strains set up by cutting the material being dredged.

Each bucket is also secured to the radial supports just above it by oblique bars to hold it up to its work and particularly to take care of the side or racking strains.

The front edge of each bucket is also connected to the cross piece which supports the preceding bucket by a tie rod, which holds the lip of the bucket to its work.

The buckets empty into conduits at their inner end, which discharge the material dredged from the sides of the large wheel.

The wheel is carried on a shaft which rests on bearings at the ends of two swinging girders, the girders being

dredge, the pipe line is supported on a line of floating pontoons.

The advantages of this dredger is that it builds its own levees while the ordinary suction dredge does not, depending on a clam-shell dredge to build the levees. The bottom is kept at a constant depth and the material is broken up into sizes that can be easily handled by the conveyor or the pipe line.

On the circumference of the wheel there are eight buckets held rigidly which will dig and discharge sixteen loads in a minute, first on one side and then on the other. The total excavation is estimated at 400,000 cubic yards per month.

PROPOSALS.

Sale of U. S. S. Zafiro—Sealed proposals will be received at the Navy Department until noon on the 9th day of June, 1909, at which time and place they will be opened, for the purchase of the U. S. S. Zafiro; appraised value \$5,000. The vessel will be sold for cash to the person or persons or the corporation or corporations offering the highest price therefor. Proposals must be submitted in sealed envelope addressed to the Secretary of the Navy, Washington, D. C., endorsed "Proposals for the purchase of the U. S. S. Zafiro," and each proposal must be accompanied by a satisfactory certified check for not less than 10 per cent of the amount of the offer. On application to the Navy Department forms of bids and bonds, together with terms and conditions of sale, also a printed list giving general information concerning the vessel, will be furnished. The vessel can be examined at

any time after the date hereof by applying to the Commandant of the Navy Yard, Puget Sound, Wash. It must be removed from the limits of the navy yard within such reasonable time as may be fixed by the Department. The Zafiro is not entitled to American registry. The Department reserves the right to withdraw the vessel from sale and to reject any or all bids.

G. V. L. MEYER,

Secretary of the Navy.

Proposals for repairs to U. S. A. T. Sherman—Office of the General Superintendent, Army Transport Service, No. 1086 North Point street, San Francisco, California, May 12th, 1909.—Sealed proposals, in triplicate, for general overhauling and repairs to the U. S. A. T. Sherman will be received at this office until 11 o'clock a. m., Saturday, June 12th, 1909, and then opened. Proposal blanks, specifications, etc., will be furnished upon application

PLEASURE CRAFT



THE Aquatic Improvement Association of San Francisco held its third regular meeting on Friday, May 14, and the following permanent officers were elected:

President, F. G. Phillips; vice presidents, C. M. Farrell, W. F. Humphrey, A. J. Giannini, W. J. Hogg, J. R. Hanify, A. J. Le Breton, Dr. T. L. Mahoney and C. H. Crocker; secretary, W. H. Bush; board of directors: Ed-

ward Skully, J. J. Cronin, D. Erskine, Edward Lynch, J. R. Hickey, Thomas S. Williams, James Punnett, Charles Creighton, Thomas C. Butterworth and W. F. Herrington.

The annual class flag regatta of the California Yacht

Club will be held Sunday, May 23d.

The California Yacht Club will move its club house from Brooks Island to a more accessible location on the lower bay some time this summer.

George Woods is making a new suit of light sails for



GOING UP RIVER.

the sloop Starlight, California Yacht Club.

The assertion has been made by a member of the Aeolean Club that Commodore Berry's Nixie would undoubtedly be bought in by a member of that club. The Aeolean Club, by the way, is making rapid strides and is



EVEN THE LADIES SAIL.

Club was held last Sunday over the club's ten-mile course. A still breeze was blowing at the start but fell light before the finish. The results were as follows:

Thirty-six Foot Class.

Boat	Owner	Start	Finish	Time Elapsed
Alert, Captain Kendall.....		12.30.43	2.01.24	1.31.24
Maryland, Captain Du Butz...		12.30.25	2.03.06	1.34.06
Alice M., Captain Keane.....		12.30.43	2.19.15	1.48.32

Thirty-Foot Class.

Tigress, Com. Broadwater....		12.25.20	2.08	1.43
Starlight, Captain Patterson..		12.24.50	2.08.32	1.43.42
Flash, Captain Louchs.....		12.25.40	2.20.30	1.54.50

The fleet of the California Yacht Club will cruise to Vallejo on May 30th, and on Sunday, the 31st, a cruising race will be sailed from the Vallejo Yacht Club house to the California Yacht Club moorings at Brooks Island.



A CRUISING OUTFIT.

taking many of the best boats from the other clubs about the bay.

The members of the California Yacht Club are ar-

ranging for a cruise in squadron to Sacramento. The date set is June 6th, and the owners of the yachts Starlight, Idler, Flash and Lillian have signed up already.

Ex-Commodore Jennings' Speedwell, formerly of the Corinthian Yacht Club, is the latest acquisition.

It is reported that Doc McMahon and Eddie Saager of the Corinthian Club intend to charter the schooner Magic for this season.

VILLAIN.

The design shown herewith is of Villain, formerly a 31-foot racing yawl, which is now at Klarman's shop in Tiburon being converted into a raised deck cruiser for Dr. Rathgen of the Pacific Motor Boat Club.

Villain was originally built by the late Captain Turner of Benicia, and presented to Andrew Swanson of Tiburon. She was one of the fastest yachts of her size on the bay, but has been used very little the last couple of years and was purchased at a bargain by Dr. Rathgen.

Owing to her peculiar lines Villain is readily adapta-

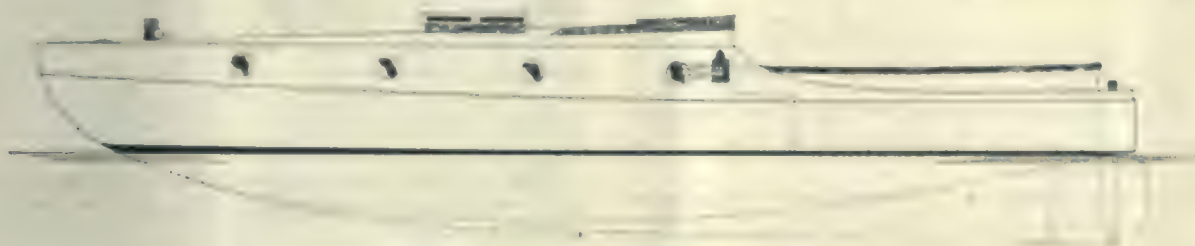
ble to conversion into a motor boat, and it is expected that she will make a very handy cruiser.

She is to have a roomy cabin, with 5 feet 6 inches head room and sleeping accommodations for three. The power will be furnished by a 20 H. P. double opposed automobile engine housed under a bridge deck in the cockpit, which will be entirely out of sight, although readily accessible. A skylight on top of the cabin will furnish ample ventilation, in addition to three port lights on each side.

The cockpit, which is self bailing, is to be 10 feet in length, and arranged to seat eight people comfortably, giving as much room as is to be found in the average open launch.

The plans for reconstruction are from the board of Stuart B. Dunbar, and the principal dimensions are shown as follows:

L. O. A., 31 feet; beam, 8 feet; draft (extreme), 2 feet 6 inches; freeboard (bow), 3 feet; freeboard (least), 1 foot 6 inches; freeboard (stern), 1 foot 8 inches; headroom, 5 feet 6 inches.



Converted Raised Deck Cruiser Villain

HINTS TO YACHTSMEN

APPROXIMATE WEIGHT AND STRENGTH OF CORDAGE.

Circumference in inches.	Diameter in inches.	Weight of 100 Fath. Manila.	Weight of 100 Fath. tarred hemp.	Strength of Manila rope in lbs.
6 thr'd	7-32 in.	12 lbs.	15 lbs.	500
9 "	1-4 "	18 "	22 "	750
12 "	5-16 "	22 "	27 "	1,000
15 "	3-8 "	28 "	35 "	1,250
1 1/4 in.	7-16 "	35 "	42 "	1,500
1 1/2 "	1-2 "	45 "	55 "	1,800
1 3/4 "	9-16 "	60 "	75 "	2,500
2 "	5-8 "	80 "	100 "	3,200
2 1/4 "	3-4 "	100 "	125 "	4,000
2 1/2 "	13-16 "	125 "	155 "	5,000
2 3/4 "	7-8 "	150 "	190 "	6,000
3 "	1 "	175 "	220 "	7,200
3 1/4 "	1 1-16 "	200 "	250 "	8,500
3 1/2 "	1 1-8 "	235 "	300 "	9,800
3 3/4 "	1 1-4 "	275 "	350 "	11,500
4 "	1 5-16 "	300 "	400 "	13,000
4 1/4 "	1 3-8 "	350 "	450 "	14,500
4 1/2 "	1 1-2 "	400 "	500 "	16,000
4 3/4 "	1 9-16 "	450 "	560 "	18,000
5 "	1 5-8 "	500 "	625 "	20,000
5 1/4 "	1 11-16 "	550 "	685 "	22,000
5 1/2 "	1 3-4 "	600 "	750 "	24,000
6 "	2 "	700 "	875 "	28,000
6 1/2 "	2 1-8 "	800 "	1050 "	33,000
7 "	2 3-8 "	900 "	1200 "	39,000
7 1/2 "	2 1-2 "	1100 "	1400 "	45,000
8 "	2 5-8 "	1300 "	1600 "	51,500
8 1/2 "	2 7-8 "	1425 "	1850 "	58,000
9 "	3 "	1550 "	2050 "	65,000

9 1/2 "	3 1-8 "	1750 "	2275 "	72,500
10 "	3 5-16 "	1950 "	2500 "	80,000
11 "	3 1-2 "	2300 "	3000 "	100,000
12 "	4 "	2700 "	3600 "	120,000

Manila is about 10 per cent stronger than Sisal.

Hawser laid rope will weigh one-sixth less.

The working strain is one-third of the breaking strain.

Four-strand rope weighs 10 per cent more than three-strand.

TO MARK A LEAD LINE

Two leads are used for soundings, the hand lead, weighing from 7 to 14 pounds, with a line marked to 20 fathoms, and the deep sea lead, weighing from 40 to 100 pounds, the line being about 100 fathoms in length.

Both lines are marked as follows:

2 fathoms from the lead, with 2 strips of leather.

3 fathoms from the lead, with 3 strips of leather.

5 fathoms from the lead, with a white rag.

7 fathoms from the lead, with a red rag.

10 fathoms from the lead, with leather having a hole.

13 fathoms from the lead, same as at 3 fathoms.

15 fathoms from the lead, same as at 5 fathoms.

17 fathoms from the lead, same as at 7 fathoms.

20 fathoms from the lead, with 2 knots.

25 fathoms from the lead, with 1 knot.

30 fathoms from the lead, with 3 knots.

35 fathoms from the lead, with 1 knot.

40 fathoms from the lead, with 4 knots.

And so on.

The intermediate soundings are called "deeps," and the only fractions of a fathom used are a half and a quarter.

MEETING OF THE CALIFORNIA STATE HARBOR COMMISSIONERS.

Thursday, May 20, 1909.

The contract with N. H. Hickman for furnishing 250 eucalyptus piles to the Board of State Harbor Commissioners was signed by the Board and a bond in the sum of \$1,500 was approved by the Board.

The Standard Oil Company made application for space formerly occupied by them near Fishermen's wharf. The space will be used as a stand for tank wagon containing naphtha. A space 7x12 feet on Section B of the seawall, at a rental of \$10 per month, was placed at their disposal, beginning June 1, 1909.

F. A. Koetitz submitted informal bid for furnishing "Koetitz Concrete Casings" of 24-inch outside diameter, 21-2-inch shell, properly re-enforced and made of 1 to 3 concrete in length, of 18 to 24 feet, at the price of \$2 per linear foot if the Board furnishes the cement, and \$2.30 per linear foot if bidder furnishes the cement. The price is f. o. b. State's barge at the factory.

Referred to the engineer of the Board for recommendation.

The Olson-Mahoney Lumber Company asked for the cancellation of berth space at Section A of the seawall, and requested a refund of rental paid from May 15th to June 1, 1909, stating as the reason for the above cancellation that they will not be permitted to use wharf lot space for storage purposes.

The assignment of 200 feet of berth space on Section A of the seawall east of Charles Doe Lumber Company made to the Olson-Mahoney Lumber Company was rescinded and the request for a refund allowed.

A. Ashton requested permission to put up a small shed (12x8 feet) on the wharf at First avenue, Butchertown. The matter was referred to the engineer of the Board.

The assignment of 200 feet of berth space on Section B of the seawall, east of the Standard Oil Company, made to the Columbus Box Factory on May 15, 1908, was rescinded at the request of that company.

The assignment of a berth space at the intersection of Section Nos. 2 and 3 of the seawall—70 feet on Section No. 2 and 142 feet on Section No. 3, made to the Bellingham Bay Lumber Co. on July 1, 1903, was rescinded at the request of the said company, to take effect June 1, 1909.

The Mercantile Box Company requested an additional assignment of 100 feet adjoining their present assignment of 150 feet on the north side of Channel, between Fourth and Fifth streets. The request was granted.

The Hart-Wood Lumber Company protest against the Board fixing the rate of rental for berth space at 50 cents per linear foot per month, in so far as the advance affects that company. The protest was filed.

The assignment of 350 feet of wharf space on the north side of Channel street, between Fourth and Fifth, commencing at the northwest corner of Fourth and Channel and running thence westerly 350 feet, made to the Gray Bros. Crushed Rock Co. on March 1, 1908, was rescinded to take effect June 1, 1909.

The assignment, made to the Mercantile Box Co. on March 1, 1908, of wharf space on the north side of Channel street, commencing at a point 350 feet west of its junction with Fourth street and extending westerly 150 feet, was rescinded to take effect June 1, 1909.

The assignment, made to the Pacific Box Factory on July 15, 1906, of wharf space on the north side of Channel street, commencing 150 feet east of the northeast corner of Fifth and Channel street and extending thence

easterly 200 feet, was rescinded, to take effect June 1, 1909.

The assignment of wharf space on the north side of Channel street, commencing at the northeast corner of Fifth and Channel street and running thence 150 feet easterly, made to the Hart-Wood Lumber Co. on July 15, 1906, was rescinded, to take effect June 1, 1909.

A wharf space on the north side of Channel street, commencing 20 feet westerly from the northwest corner of Fourth and Channel streets and running westerly 200 feet, was assigned to the Gray Bros. Crushed Rock Company and rental fixed at \$62.50 per month. This rental is based on the rate of 31 1-2 cents per linear foot on condition that said company shall keep said wharf in repair at their own expense.

A wharf space on the north side of Channel street, commencing 225 feet westerly from the northwest corner of Fourth and Channel streets and running westerly 250 feet, was assigned to the Mercantile Box Co., and rental fixed at \$78.00 per month. This rental is based on the rate of 31 1-2 cents per linear foot per month in consideration of the said company keeping wharf in repair at their own expense.

B. H. Teitjen requested that his assignment of berth space at Mission street wharf No. 2 be reduced from 140 linear feet to 95 linear feet and that the office rental on said space be readjusted to include the rental of berth space.

The Chief Wharfinger has been directed to rigidly apply wharfinger rules on all unassigned territory where lumber trucks or other material occupies State property.

The request of the San Francisco Labor Council that the Ferry Building be illuminated on the evening of September 6, 1909, on the occasion of the Labor Day celebration was granted.

An application for permission to establish a drug store in the Ferry Building made by Mr. Jeff Penn was denied.

The engineer of the Board recommended that the assignment of space on Beale street wharf to the Pacific Coast Coal Co. be rescinded, but that said company be allowed to occupy said space while it is practicable to bring ships into their berth. The recommendation of the engineer was accepted and said company will be allowed to hold said space after July 1, 1909, but they will be required to vacate without additional notice.

Secretary was instructed to collect bill against Thomson Bridge Company, amounting to \$200 for the rental of State Driver No. 1 during the month of April.

Secretary was directed to collect bill against the Western Fuel Co., amounting to \$5,215.26, as their portion of the expenses of labor for the repairs on the Folsom street wharf No. 2, as per agreement.

Bill in favor of J. W. McDonald, amounting to \$227.70 for repairing the bituminous pavements in front of Ferry Building and on Mission street wharf, was referred back to the engineer for revision.

The San Francisco and Portland Steamship Company will re-establish a \$10 and \$15 passenger rate between Portland and San Francisco upon the arrival of the company's new steamer Kansas City. The large numbers of steam schooners which carry passengers on this run charge from \$8 to \$12 and the Harriman steamers were forced to reduce in order to compete with them. The heavy traffic, however, which will result from the exposition, the schooners will be unable to take care of and the old rate will be restored in anticipation of this. The Kansas City will reach San Francisco early in July and until then the steamer State of California will be kept on the run.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

THE PORTLAND CHAMBER OF COMMERCE, PORTLAND, OREGON

The Portland Chamber of Commerce begs to point out to ship-owners the customary charges which ships loading here may expect to incur:

BAR PILOTAGE.—This charge is not compulsory. However, Pilotage hereafter will be under the direction of the Port of Portland Commission, a Municipal Corporation established by the Oregon State Legislature. The Port of Portland Commission will conduct both the pilotage and towage services in a most efficient manner—this being their sole object. Beginning approximately about July 1, 1909, pilots will be kept on the bar at all times, either in a power pilot boat or tow boat. In good weather a tow boat will be kept outside the bar and in stormy weather it will be kept either off the bar or inside the jetty, within a short distance of the ocean. Pilotage and towage rates are not compulsory.

Masters are strongly recommended not to attempt to enter the river without pilots, except in cases of grave emergency.

RIVER PILOTAGE is not compulsory, the Port of Portland undertaking to man their tow boats with capable pilots in order to abate this unnecessary expense. The towing is done by stern-wheel boats of high power, lashed firmly to the quarter of the ship, from which it will be seen that there is absolutely no need of an additional pilot. Your special attention is called to these facts, as masters may be approached by river pilots who make their headquarters at Astoria and solicited to employ their services. These remarks apply only to sailing vessels; steamers require pilots in all cases, their charges being \$2.00 per foot of draft and 2 cents per ton net register, up or down the river, and \$7.50 for each move in the harbor.

LINING FOR WHEAT CARGOES. This should be done by contract, and should not exceed \$50.00 to \$85.00 per sailing ship, according to size, and \$125.00 to \$250.00 per steamship, according to size, in addition to the cost of lumber, which will average about \$13.50 per M., and burlap at 6¢ cents per yard.

LINING FOR FLOUR CARGOES costs 10 to 15 per cent more than for wheat cargoes.

SEAMEN. Under the present state law boarding masters are permitted to charge \$30.00 for each man shipped. This charge is payable by the ship and does not include an allotment of one month's wages which is usually collected from the seaman. Wages average £5 for A. B. seamen and £4 for ordinary seamen. Firemen and trimmers, £5 to £6 per month.

TIDE TABLE TO WEEK ENDING SATURDAY, JUNE 5. Golden Gate Entrance to San Francisco Bay.

M A Y

Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
S	Fri.	7	6:40	0.2	14:04	4.5	18:35	3.2		
	Sat.	8	0:02	5.6	7:26	0.3	15:04	4.6	19:12	3.3
	Sun.	9	0:32	5.5	8:14	0.3	16:08	4.6	20:15	3.5
	Mon.	10	1:13	5.3	9:08	0.2	17:10	4.7	21:20	3.7
	Tues.	11	2:10	5.1	10:05	0.1	18:05	4.7	22:40	3.5
3rd. quar.	Wed.	12	3:35	4.7	11:02	0.1	18:50	5.0		
	Thur.	13	0:00	3.2	5:26	4.5	12:02	0.4	19:30	5.2
	Fri.	14	1:06	2.5	6:58	4.6	13:08	0.7	20:04	5.4
	Sat.	15	2:03	1.8	8:10	4.7	14:00	1.0	20:40	5.6
	Sun.	16	2:55	1.0	9:12	5.0	14:50	1.3	21:14	5.9
New	Mon.	17	3:45	0.3	10:12	5.1	15:15	1.7	21:50	6.1
	Tues.	18	4:22	0.3	11:14	5.0	16:20	2.0	22:25	6.3
	Wed.	19	5:10	0.7	12:14	5.0	17:04	2.4	23:04	6.4
	Thur.	20	6:00	1.0	13:15	4.8	17:50	2.8	23:42	6.2
	Fri.	21	6:48	1.1	14:16	4.6	18:38	3.2		
N	Sat.	22	0:25	5.9	7:40	0.9	15:20	4.6	19:30	3.4
	Sun.	23	1:10	5.7	8:27	0.7	16:20	4.7	20:32	3.6
	Mon.	24	1:54	5.2	9:20	0.3	17:18	4.7	21:48	3.9
	Tues.	25	3:00	4.7	10:10	0.1	18:08	4.9	23:15	3.6
	Wed.	26	4:20	4.2	11:00	0.5	18:50	5.2		
1st. quar.	Thur.	27	0:34	3.2	5:45	4.1	11:50	0.9	19:22	5.3
	Fri.	28	1:30	2.7	6:58	4.0	12:45	1.2	19:54	5.6
	Sat.	29	2:10	2.1	8:00	4.0	13:28	1.5	20:22	5.4
	Sun.	30	2:45	1.6	9:00	4.1	14:08	0.8	20:45	5.5
	Mon.	31	3:10	1.1	9:48	4.3	14:45	2.1	21:06	5.6
J U N E										
Full	Tues.	1	3:45	0.5	10:38	4.4	15:25	2.3	21:40	5.7
	Wed.	2	4:22	0.0	11:25	4.4	16:05	2.6	22:00	5.8
	Thur.	3	5:00	0.5	12:15	4.5	16:45	3.0	22:34	5.9
	Fri.	4	5:44	0.8	13:06	4.5	17:25	3.2	23:05	6.0
	Sat.	5	6:25	0.9	14:00	4.5	18:14	3.3	23:40	5.9

Time used, Pacific Standard, 120th Meridian W.

0h—midnight 12h—noon less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.

N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator A. P.—Moon in apogee or perigee.

COLUMBIA RIVER TOWAGE TARIFF

From the Pacific Ocean to Portland and Return

Vessels 500 to 700 tons net register	\$500
Vessels over 700 to 1,000 tons net register	550
Vessels over 1,000 to 1,200 tons net register	600
Vessels over 1,200 to 1,500 tons net register	650
Vessels over 1,500 to 1,800 tons net register	700
Vessels over 1,800 to 2,000 tons net register	750
Vessels over 2,000 to 2,500 tons net register	800
Vessels over 2,500 to 3,000 tons net register	850

Tug's hawser, when used, \$15 each way.

Vessels in ballast towed from the sea to Astoria and return, when entering the river as a port of call and departing without cargo, will be charged 25 per cent of the rate to Portland and return.

A free ballast dock has been provided where no charge is made for wharfage or disposal of ballast after leaving ship's tackles.

DISCHARGING.

Ballast, per 2240 lbs. net	\$0.35
Cement, per 2240 lbs. net	.32½
Coal, per 2240 lbs. net	.37½
Coal (at Astoria), per 2240 lbs. net	.40
General Merchandise, weight and measurement, per 2240 lbs. net	.35
Pig Iron, per 2240 lbs. net	.40
Bricks and Tiling, per 2240 lbs. net	.60
Coke, per 2240 lbs. net	.70
Railroad Iron, per 2240 lbs. net	.50
Street Car Railroad Iron, per 2240 lbs. net	.55
Window and Plate Glass, per 2240 lbs. net	.60
Clay, per 2240 lbs. net	.40
Sulphur, per 2240 lbs. net	.37½
Angle Iron, per 2240 lbs. net	.75
Structural Iron, per 2240 lbs. net	1.15
Bar Iron, per 2240 lbs. net	.45

LOADING.

Wheat, per 2240 lbs. net	\$0.30
Wheat, Large Sacks, per 2240 lbs. net	.32½
Half Sacks Flour, per 2240 lbs. net	.32½
Quarter Sacks Flour, per 2000 lbs. net	.40
Barley, per 2000 lbs. net	.30
Bran and Oats, per 2000 lbs. net	.40
Salmon, per 2240 lbs. net	.45
Lumber, Timber and Piles rate, at Portland and Astoria, according to specifications and condition of vessel.	

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	18	May 1	13 ft. at L. W. in channel to Hoquiam and Aberdeen.
Willapa Bay	27	May 1	No change in channel; 16 feet M. L. W. in channel to South Bend.
Columbia River	24	Feb. 6	
Nehalem River	9	Apr. 30	Channel is 300 ft. south of buoy.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	13	Mar. 12	Channel not changed.
Siuslaw River	4	May 1	Beacon on beach in line with south side of gulch leads over bar.
Umpqua River	12	May 1	Channel is in good condition.
Coos Bay	17	May 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	8	May 4	Channel shifted north close to jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	8	May 2	Channel shifting to southwest.
Humboldt Bay	18	May 1	North channel crooked and difficult; 15 feet in south channel at L. W.
San Pedro Bay	19	Apr. 30	No change in channel.
San Diego Bay	25	May 3	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

10 cents per ton extra for discharging cargo on barges, cars or into hoppers, excepting structural and railroad iron, which is 15 cents per ton; hauling of barges to be charged to vessel or consignee.

**PORT OF PORTLAND DRYDOCK DOCKING RATES.
STEAM VESSELS ON GROSS TONNAGE.**

Up to 999 tons	24c per ton
1,000 to 1,999 tons	21c per ton
2,000 to 3,999 tons	18c per ton
4,000 tons and over	15c per ton

SAILING VESSELS ON NET TONNAGE.

Up to 599 tons	19c per ton
600 to 999 tons	17c per ton
1,000 tons and over	15c per ton

Minimum charge, forty dollars (\$40.00) for any vessel.

Cargo charged at same rate as tonnage. No charge for ballast.

Docking charge to include use of dock for 24 hours from the time deck is above water.

First two lay days 2c per ton per day. (Minimum charge, \$40.)

Three succeeding lay days each one-half docking rates. (Minimum charge, \$40.)

Additional lay days \$250 each for the whole dock, or for small vessels \$50 per pontoon per day for each pontoon required.

Wrecked vessels will be charged \$50 per pontoon per day for time required and for the labor and material necessary in preparing and clearing dock.

Twenty-four hours to constitute a day, a portion of a day to be charged as a full day. A charge to be made for July 4th, Thanksgiving, Christmas and Sundays only in case work is performed on a vessel.

Vessels in any class to have the advantage of the minimum charge in the next larger tonnage class.

All bills are to be paid in cash when the vessel is undocked. No discounts or rebates of any kind will be allowed.

Berth Rates: Waiting free. Laying up, \$1.00 per day per thousand gross tons or fraction thereof.

An electric derrick of 10 tons capacity, placed on the wharf at the west end of the dock, is available for lifting propellers, tail shafts, and for other purposes.

There is a small shop on the dock, containing an electrically operated air compressor, a radial drill, and a large blacksmith forge.

Compressed air for operating air tools, and 500 volt D. C. electricity for operating electric tools, will be supplied according to the accompanying schedule.

The contractor, or the ship, must hire and pay the mechanics direct, as The Port of Portland does not do any repair work on vessels.

RATES

For the Electricity Consumed as Follows:

Kilowatt Hrs.	Per K. W. H. Cents.	Kilowatt Hrs.	Per K. W. H. Cents.
100 or less .....	.7	2000 to 3000 .....	.3
100 to 200 .....	.6½	3000 to 4000 .....	.2½
200 to 300 .....	.6	4000 to 6000 .....	.2¼
300 to 400 .....	.5½	6000 to 8000 .....	.2
400 to 500 .....	.5¼	8000 to 10000 .....	.1¾
500 to 600 .....	.4¾	10000 to 15000 .....	.1½
600 to 700 .....	.4½	15000 to 20000 .....	.1¼
700 to 800 .....	.4¼	20000 to 25000 .....	.1¾
800 to 1000 .....	.4	25000 to 30000 .....	.1¼
1000 to 1500 .....	.3¾	30000 to 40000 .....	.1½
1500 to 2000 .....	.3½		

Electric derrick, \$1.50 per hour, with engineer, while being used.

Minimum charge, \$5.00.

Air compressor

Radial drill

Blacksmith forge, including coal.....

Above charges include the services of the engineer in charge of the electric motor operating the shop, and of ordinary wear and tear on tools; but a charge is made for the electric current used and for any damage to tools or appliances.

Water will be furnished at 30 cents per thousand gallons, with a minimum charge of \$2.50.

Vessels requiring the dock more than four weeks will be allowed to have the same only by special arrangement with the Board.

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The United States Marine Corps was first called into existence by an act of the Continental Congress on November 10, 1775, and gallantly served with distinction throughout the Revolutionary War. It was disbanded at the close of the war, April 11, 1782, but was reorganized and permanently established July 11, 1798. The Marines comprise the military branch of the naval service, and serve both at sea and on shore at the navy yards and naval stations. It is the gallant little corps that has so ably assisted in fighting America's battles both on land and sea in every corner of the globe for more than a century; its members are the first men on the ground in case of trouble with foreign power, and the first men into battle in case of hostilities. They have at all times served their country faithfully, both in peace and war, and reflected great credit upon themselves as a corps and on the nation which they represent. Ever have they lived up to the letter, as well as the spirit, of the motto of the Corps: "Semper Fidelis."

The regular pay of Marines varies from \$15 to \$69 per month, according to rank and length of service. A man starts in as a private at \$15 per month and climbs up in accordance with his individual merits. Should he serve faithfully and receive an excellent discharge at the end of his first and second enlistments, upon reenlistment he will receive a "Good Conduct Medal," also an increase of \$3 to \$4 per month for "continuous service," and, if a private soldier, will receive in addition thereto upon his first reenlistment three months' bounty at the rate he was receiving at the time of his discharge. For each subsequent reenlistment an increase of from \$1 to \$4 per month is allowed for continuous service up to and including the seventh enlistment. For each good conduct medal that a Marine holds he is allowed 75 cents a month in addition to his regular pay. Should he qualify with the service rifle his pay is increased from \$2 to \$5 per month, according to the class of his qualification. Likewise, if he qualifies aboard ship with the great guns his pay is increased from \$2 to \$8 per month, according to the grade of his qualification made at the annual target practice.

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PACIFIC MERCHANT MARINE

SATURDAY, JUNE 5, 1909

VOL. II

NO. 11

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State Board of Harbor Commissioners

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Editorial

Notes of Interest from Pacific Coast Ports

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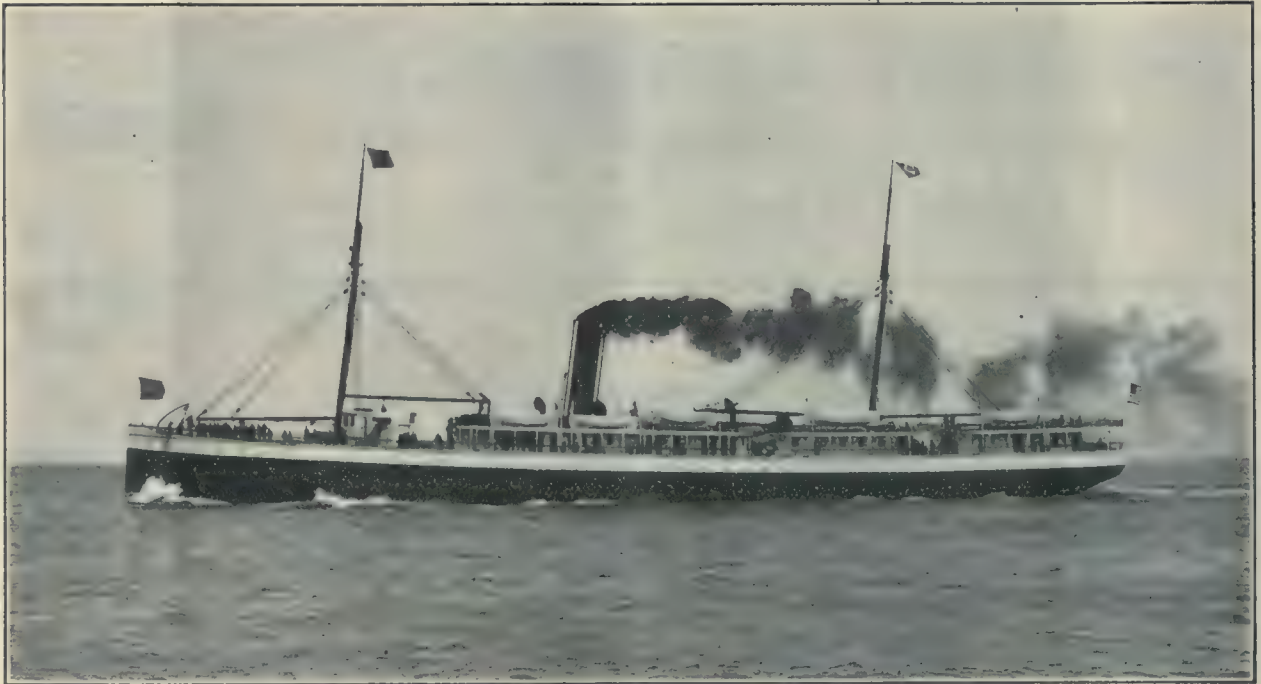
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Pacific Merchant Marine

Volume II

SATURDAY, JUNE 5, 1909

Number 11

SPEECH OF HON. CHARLES H. GROSVENOR

In the House of Representatives

(Continued from last issue.)

All this can be done at a cost to start with of between one and two million dollars a year and a cost on the average for ten years of no more than four or five millions, which is not more than is being paid now in national aid to steamship lines by our chief competitors and a mere fraction of the sum which we are expending on our Army and our Navy, to say nothing of the stupendous task of building the isthmus canal—a canal which, when built, unless this bill is passed, will float nothing but men-of-war and the merchant ships of our commercial adversaries.

In a Nutshell.

Speaking more concisely, it may be said that, in a nutshell, Senate bill 529, framed by the President's Merchant Marine Commission, and passed February 14, 1906, by the Senate, provides for:

1. A volunteer naval reserve of 10,000 officers and men of the merchant marine and fisheries, trained in gunnery, etc., subject to the call of the President in war, and receiving retainer bounties, as 33,500 British naval-reserve men do.

2. Subventions at the rate of \$5 a gross ton a year to all cargo vessels in the foreign trade of the United States and to craft of the deep-sea fisheries, and \$6.50 a ton to vessels engaged in our Philippine commerce, the Philippine coastwise law being postponed till 1909. But these cargo vessels, in order to receive subventions, must be held at the disposal of the Government in war, must convey the mails free of charge, be seaworthy and efficient, carry a certain proportion of Americans and naval-reserve men in their crews, and make all ordinary repairs in the United States. Ships lose their subventions if they leave our trade for that of foreign countries, or if, like the Standard Oil craft, they are not engaged exclusively as common carriers.

3. Subventions to new mail lines from the Atlantic Coast to Brazil, Argentina and South Africa; from the South Atlantic Coast to Cuba; from the Gulf Coast to Cuba, Brazil, Mexico, Central America and the Isthmus of Panama; from the Pacific Coast, Via Hawaii, to Japan, China and the Philippines, and to Mexico, Central America and the Isthmus of Panama, and from the North Pacific Coast direct to Japan, China and the Philippines, with increased compensation to one existing contract line from the Pacific Coast, Via Hawaii and Samoa, to Australasia.

All ships receiving subventions must be already American by register or American built, thus excluding the foreign-built fleet of the Atlantic steamship combination. Not one dollar is given to fast passenger and mail lines to Europe. Ships constructed for foreign commerce to receive these subventions can, under the Dingley tariff, be built, equipped and repaired of materials imported free of duty.

The maximum annual cost of the proposed mail subventions will be about \$3,000,000; of the other subventions and retainers to the naval reserve from \$1,550,000

in 1907 to \$5,750,000 in 1916.

Great Britain next year will pay \$6,000,000 or \$7,000,000 in shipping subsidies; France, \$8,000,000; Italy, \$3,000,000, and Japan about \$4,000,000.

The Interests of Labor.

As will be more fully stated further on, there is being paid for the transportation of our foreign commerce something like \$200,000,000 per annum. Substantially all of it goes to foreign labor. Not only is this true, but each recurring ship that is built to keep up the necessary volume of shipping to carry our products abroad is built in a foreign land. The material is mined, hewed from the forests, shaped into ships and paid for by money every dollar of which ought to be the reward of American labor.

Let me speak of the interests of American labor for a moment. You profess to be alert to the interests of American labor. The men of organized labor are demanding that in the public institutions of the country where convict and other forms of cheap labor are employed manufactured articles shall not be produced to glut the American market, and yet two or three leaders of organized labor in the United States, without rhyme or reason, without knowledge or sense, simply negative every effort of organized labor to be heard in behalf of the greatest project that American labor is to-day interested in.

Put the American ship in its proper relation to the business and commerce of the United States and in the production of the raw material of the ship, in the construction of the ship, in the manning and officering of the ship, in the running and handling of the ship, more than \$500,000,000 of money would come to us, a vast percentage of which would go into the pockets of labor. The laboring men of this country should organize as they have never organized before and with moral suasion and ballots should demand that this un-American tirade against American interests should cease, and cease now. The silence in abandoned shipyards, the paralysis of labor heretofore engaged in these works are impressive monitors that the laboring man of this country is being led like sheep to the shamble by one or two men who dare to dictate the ruinous policy of buying our ships abroad and maintaining our ships abroad by paying the money abroad for all these vast expenditures. So much for the attitude of the laboring man.

I take great pleasure in announcing that within the last few weeks the labor organizations throughout the country are rapidly coming to understand the situation, and many of the strongest appeals for the passage of this bill that we have come from organized labor in defiance of the men who stand throttling an intelligent expression of their views.

THE PANAMA CANAL

Seven hundred and fifty West Indian laborers arrived at Colon on April 21. On March 24, 532 Barbadians were landed. These men were imported to replenish the labor supply, due mainly to increased work on the relocation of the

Panama railroad. It is estimated that there are 5,000 idle West Indian laborers in the canal zone. Some difficulty is experienced by the commission in cultivating the home-making instinct among the laborers, many of them preferring to live in the bush.

The chief subsistence officer recently returned from a visit to the States, where orders were placed for various quantities of manufactured articles, one of which was for 10,000 pairs of shoes for immediate delivery.

Work is well advanced on the lining of the earth section of Miraflores tunnel, and no doubt exists that the concrete work will be completed before the beginning of the rainy season. The rock section has been entirely lined, and the south portal has been extended so as to hold any material that may slide down that side of the hill. As originally cut, the tunnel was 600 feet long, and is now 811 feet; the greater part of the additional 211 feet representing the extension that was made to hold the slide.

It is a mistaken notion that Panamanian silver is a depreciated currency. The standard coin of the republic is the gold Balboa, equal in value to the American dollar, and the silver coins are subsidiary to the Balboa, their parity being guaranteed by the republic. The fact that the Balboa has not actually been coined does not affect the value of the silver coins.

Of the grand total of excavations by Americans, all except 7,000,000 cubic yards has been accomplished since January 1, 1907—two years and five months. It is estimated that there yet remains to be excavated 101,541,745 cubic yards. In the month of March, 1909, more material was excavated than during the first two years of American occupation. The rate at which the remainder will be done should be judged by the average for the year 1908.

The total classified expenditures from appropriations for canal construction up to February 1, 1909, amounted to \$93,915,657.76.



SURVEYING FOR ROADS IN THE JUNGLE BEFORE AMERICAN OCCUPANCY.

May 4 was the fifth anniversary of the commencement of canal construction by the United States, which event was celebrated at a dinner given at the Hotel Tivoli. Nearly one hundred Americans, continuously employed on the canal since 1904, attended the dinner.

The steamship Waverly recently arrived at Cristobal with 750 tons of pig iron, and oak and yellow pine lumber for car repair work.

The Government of the United States has not specifically guaranteed the value of Panamanian money, though it has agreed to make the coin of the Republic of Panama legal tender within the Canal Zone, and to co-operate with the Republic to maintain the parity of Panamanian silver by the sale of drafts upon the funds of the commission.

By the general conditions of employment, effective July 1, 1907:

The commission reserves the right to pay in any money, the value or parity of which is guaranteed by the United States. Being on the gold roll will not in the future confer any special privileges.

Contracts with employees engaged in the United States stipulate that payment shall be made in United States currency, and the commission is bound by its contracts. In the absence of such agreements the commission has the right to pay in Panamanian money;

LOCAL NOTES.

Judge De Haven awarded two of the crew of the whaler John and Winthrop \$50 and the remaining sixteen \$125 each for the brutal treatment accorded them by Captain W. F. Shorey. The whaler sailed from this port in July of last year and from that time until the arrival here a few weeks ago trouble was a frequent visitor on board. The crew was placed in irons, triced up by their thumbs, forced to sleep on the bare deck and ordered to scrape down the masts when the thermometer stood several degrees below zero.

In the admiralty suit instituted in the U. S. district court by W. A. Boole & Sons against the tug Millen Griffith, \$8,741.23 was awarded to the former. This amount was sued for as due for material and labor furnished in making repairs on the tug in July, 1906.

In the answer filed in the United States district court yesterday in the libel of J. Ross et al., against the schooner John A. Campbell, which took fire at Antioch, it is denied that the libelants were responsible for saving the schooner. It is claimed, first of all, that they were connected with the Antioch fire department and responded to the alarm as any fireman had to do, hence were not in a position to demand salvage. Moreover, it is claimed that the schooner's crew had the fire under control when

the libelants came alongside. It is also set forth that the schooner was not worth \$30,000, or any sum in excess of \$20,000.

The gasoline whaler Lizzie F. Sorensen sailed for the southwestern coast of Alaska May 29 for the purpose of hunting finback and humpback whale to be used as a fertilizer. The gasoline engine of 125 horsepower was but lately installed and will send the boat along at 7 knots. Her tanks have a capacity of 4,000 gallons, of which 1,500 gallons will be used on the trip to the Alaskan coast. A gun capable of throwing a projectile weighing 120 pounds is mounted at the bows, for the purpose of harpooning the whales. In order to withstand the strain on the bows when the gun is fired, heavy steel plates were riveted on.

U. S. customs inspectors in the arrest of a smuggler and the capture of 10 tins of opium on him, believe that they have broken up the only present existing opium ring. That further attempts will be made to enter the opium, free of duty, the inspectors are well aware of and ceaseless vigilance is being exercised.

Collector of the Port Stratton has imposed a fine of \$600 on the California Navigation and Investment Company for failure to maintain harbor lights on its barges Echo, East Side and Argus. On the night of March 12 a vessel was injured by running into the unlighted barges while they lay moored near Mission Rock. The owners of the injured vessel made complaint to Collector Stratton and the resulting fine of \$200 in each case was the result.

The Matson Navigation Company have contracted with the United Wireless Company for the installation of that company's equipment on the new boat being built at Newport News. The apparatus will be of two kilowatt capacity and will have a working radius of 1,500 to 2,000 miles.

The Italian Government will construct 25 per cent of a mammoth Dreadnaught from scrap iron taken from the ruins of San Francisco after the fire of 1906. With the addition of 75 per cent of steel the Government claims to be able to produce the most effective armor yet discovered for war vessels. The French bark Bretagne is loading forty carloads of the scrap at Long Wharf, Oakland, and it will proceed to Genoa, Italy, with the cargo. Two years ago the Italian Government ordered several carloads for experimental purposes and on the conclusion of the tests the new shipment was ordered.

All licensed deck and engineer officers of the army transport service will be required in the future to undergo an annual physical examination. This is a synopsis of an order received from the office of the Quartermaster-General, Washington, by Colonel Frederick von Schrader, superintendent of the transport service, who will put it into effect at once.

The Pacific Coast Steamship Company will equip all their boats with the wireless apparatus of the United Wireless Company. The S. S. Umatilla, which sailed June 1st on a through run to Nome, was equipped with that system before leaving.

All the boats of the Pacific Coast Company are equipped with wireless but the different systems in use have caused considerable confusion and the order for the change is the result.

The Pacific Mail liners have been for some time carrying increasing cargoes in both directions and the traffic promises to be good for a long time to come.

The freight steamer F. M. Smith, which was recently purchased by Harry G. Williams of the Williams Coal Company of Oakland from the Arper Transportation Co.,

was burned to the water's edge May 30th. The vessel had been lying idle at anchor in the Brooklyn basin in East Oakland for the last four months. It was being repaired and was about to be put in commission. It was valued at \$18,000 with insurance of \$10,000. The vessel will be a total loss.

The Pacific Mail Steamship Company has abandoned all hope of saving the wrecked steamer Indiana, which went ashore near Magdalena bay, and arrangements have been made to have the Board of marine Underwriters have the Robert Dollar Company dismantle and salvage her. The Indiana was valued at \$200,000 and she was insured for \$150,000 in the Lloyd Underwriters Company, which has been paid. The entire cargo of the vessel with the exception of 1,000 bags of coffee and other perishables was salvaged.

The Oakland Transportation Company has placed the steamer Grace Barton in commission and will operate her on a daily freight schedule between San Francisco and Oakland and way landings on the creek. The boat connects with the steamer Resolute for Petaluma and way landings and with the Monticello steamers for Napa, Vallejo and way landings. The Barton will leave Washington street wharf, San Francisco, at 5:30 p. m. for Oakland, East Oakland, Alameda and way landings on the Oakland creek.

The four-masted schooner J. H. Lunsmann, the property of the Logan Lumber Company, sank May 26 while lying at Webster street wharf loaded with 1,257,000 feet of lumber from Tacoma.

The National Government will provide a dredge for continuous systematic dredging of the shoal places in the harbor and the maintenance of deep clear channels.

The Pacific Telephone and Telegraph Co. have sued the owners of the steamer Olson & Mahoney for \$3,575.10 damages for breaking the cable between Yerba Buena island and Oakland on November 25th last. The cable caught in the anchor of the Olson & Mahoney while the boat was drifting and tore it from its fastenings.

The Shipowners and Merchants Tugboat Company has purchased the four-masted American ship Simla, which was almost destroyed by fire while lying up at Acapulco. The Simla will arrive in tow of the tug Hercules in about thirty days and upon arrival \$20,000 will be expended in putting her in commission for the Pacific trade.

The Matson Navigation Company's ship Fort George was given up at Lloyd's reinsurance office in London and the owners were given their insurance.

Two of the largest and most modern oil-tank steamers in the world have been built in England for the Union Oil Company of this city and will be used for trade out of San Francisco.

Each of the vessels will have a capacity of 60,000 barrels of oil, or 8,000 barrels more than the huge carriers Santa Maria or Santa Rita, which are in constant use with the other "tankers" of the fleet on this Coast.

The two new steamers are expected to arrive here and go into commission within ninety days. Like all the other modern tankers lately placed in commission here and elsewhere, the new steamers are equipped with fine quarters for the officers and crew, as well as being possessed of every device calculated to expedite the loading and discharging of oil. The names of the tankers have not yet been made known to the local agents of the company. The addition of the mammoth tankers just built will make the aggregate capacity of the Union Oil Company's fleet 391,000 barrels. The largest carriers at present in use are the Santa Maria and Santa Rita, each of 52,000 barrels, and the other ocean-going vessels of the

company are: Steamer Argyll, 29,000 barrels; steamer Lansing, 47,000; steamer Roma, and steamer Washtenaw, each 28,000 barrels; steamer Whittier, 11,000; barge Santa Paula, 8,000, and barkentine Fullerton, 16,000 barrels. The tanker Santa Rita, which is in drydock at Callao, Peru, as the result of breaking her propeller while on the southern coast, is now on the way back to this city.

P. M. S. S. Newport cleared for Ancon via ports with merchandise valued at \$176,955.

The Matson bark St. Katherine sailed May 21st for Honolulu with a 2,100-ton cargo.

P. M. S. S. San Jose arrived May 21st from Panama with cargo and treasure valued at \$91,450.

P. M. S. S. Siberia arrived May 30th with 5,000 tons of cargo from the Orient; 1,500 tons of the cargo are for overland shipment and 150 tons for Panama shipment.

Matson S. S. Hilonian arrived May 26th with a heavy cargo of island product, which included 30,873 sacks of refined sugar, 11,360 sacks of raw sugar, 3,000 bunches of bananas, 16,000 cases of canned pineapples, 2,500 bags of rice, 1,400 bags of rice hulls, 150 crates of fresh pineapples and 200 tons of plunder.

Whaler Jeanette sailed May 25th with a supply of provisions, clothing and other necessities of life for the men stationed at Bering sea all winter. Although the vessel is equipped with a complete steam engine in good condition she will make the voyage to the Bering sea and Arctic ocean under sail alone. The vessel has several tons of coal for the Herman, which is now in the Bering sea on a whaling expedition.

The Chargeurs Reunis steamer Admiral Hamelin arrived with 3,500 tons of assorted cargo from European and Oriental ports.

Barkentine Dungan of Welch & Co. arrived May 24 from the Hawaiian islands with 19,184 bags of sugar.

Matson bark R. P. Rithet arrived May 24 from the Hawaiian islands with 31,200 bags of sugar.

French bark Belen arrived May 27 out 202 days from Glasgow via Hobart with a miscellaneous cargo consigned to Balfour, Guthrie & Co., which consisted of 1,946 tons of coke, 500 tons of pig iron, 119,510 fire brick and 50 casks of cement.

The O. S. S. Mariposa sailed May 21st for Tahiti with cargo valued at \$46,703.

The P. M. S. S. Siberia arrived May 30 with a large passenger list and a cargo of 5,000 tons valued at \$1,204,000.

Japanese liner Nippon Maru departed June 1st for ports of Japan and China via Honolulu with \$4,500,000 in silver bullion consigned to counting-houses in Hongkong and Shanghai.

NORTHERN COAST NOTES.

Tacoma.

The American Tugboat Company of Everett has purchased from the Alaska Commercial Company the tug Mary D. Hume.

On the official trial trip the Tacoma Maru developed a speed of fourteen miles an hour with 4,000 tons of ballast. The steamer was built for the Osaka Shosen Kaisha, to be operated on the Oriental-Tacoma run, in conjunction with the Chicago, Milwaukee and St. Paul Railroad.

The compilation of distance tariff schedules and way bill routing to all Oriental points, including those not reached by its fleet of 112 steamers, has been completed by the Osaka Shosen Kaisha and forwarded to the traffic departments of the Chicago, Milwaukee and St. Paul and Chicago, Milwaukee and Puget Sound railways, in conjunction with which the Osaka line will inaugurate American-Oriental service August 1.

All arrangements for beginning the new service on the new line, which will have its main port of call on the American side at Tacoma, have been made. Edwin Orrett, the American traffic manager of the company, will arrive in Tacoma June 1st, and assume his duties; and the Tacoma Maru, the first of the fleet of six steamers being built especially for the American service, will begin her trial tests the latter part of this week. The Tacoma Maru will arrive in Tacoma July 15th and leave with her first cargo August 1st.

The way bill routings of the Osaka Shosen Kaisha, copies of which have just been received in Tacoma, will enable the new line to offer American shippers facilities by which goods can be landed in practically every Oriental port of call, from Ceylon to Vladivostok, within five weeks after they leave Tacoma. Routings from Shanghai and Hongkong show steamings to southern Oriental ports varying in frequency from every day to three weeks, while the routings from Yokohama, Kobe and Moji to northern Oriental points will afford steamings and delivery of shipments in even a less average of time.

Local traffic men assert that the new Tacoma-Oriental line will be able to make the fastest deliveries of any line now plying the North Pacific, and the indications are that a very large amount of the Oriental freight which now goes via San Francisco will go via Tacoma after August 1st.

The first official map showing the connections of the Milwaukee and Osaka systems was received in Tacoma yesterday from the traffic department of the parent Milwaukee system. The map shows an intricate network of lines giving regular service along the Japanese, Korean, Chinese and Siberian coasts, and also the routings of daily steamers to the Inland Sea and coast points in Japan, where the heaviest tonnage eastbound for the new line will originate.

In addition to the hundred or more routings the Osaka Shosen Kaisha will give to Oriental ports which it does not touch, the company will offer regular service on its own steamers, 106 of which have an aggregate tonnage of 110,000 gross tons, as follows:

Vladivostok-Japan coast line, monthly steamings; Kobe-Keelung line, four times a month; Yokohama-Takao line, four times a month; Formosan Coasting line (eastern and western), fortnightly; Osaka-Antung line, twice a month; Osaka-Chemulpo line, twice a week; Osaka-Gensan line, five times a month; Osaka-Darien line, twice a week; Yokohama-Darien line, monthly; Nagasaki-Darien lines, monthly; Osaka-Tientsin lines, four times a month; Tamsui-Foochow line three times a month; Hong Kong-Shanghai line, fortnightly; Hongkong-Tamsui line, weekly; Hongkong-Anping line, twice a month; Tsuruga-Vladivostok line (in connection with Trans-Siberian railroad), weekly.

R. Fukao, the American commercial agent of the new line, left Chicago last night for Tacoma, following an extended conference with Eastern traffic officials of the Milwaukee system. Mr. Fukao will reach Tacoma Wednesday night.

The City Council of Tacoma has accepted the report of the special fire committee, which report advised the Council to employ Fred A. Ballin to draw plans and prepare specifications for a fireboat with a steel hull; cost not to exceed \$90,000. The boat will be modern in every respect and fitted with a centrifugal pump.

The Nome freight on the docks in Tacoma greatly exceeds that of former seasons, and shippers say the prospects for heavy northern business from this port were never brighter.

The Alaska Steamship Company have made a sweep-

ing reduction in rates from Puget Sound to Nome and St. Michaels and all other lines operating on this route are expected to follow suit. In the new schedule minimum rates on cargo will be \$6 per ton, against the former price of \$15 per ton.

The Pacific Coast Steamship Company later announced that the same rates applied to them as well as to the Alaska Company.

That freight cannot be landed at Nome or St. Michael at \$6 a ton except at a loss is conceded. The average stevedore charges at point of loading amount to 75 cents. It is said that the average charge for damage is 25 cents a ton. The minimum lighterage charge at Nome, which is included in the \$6 rate, is \$3. This leaves no profit for the steamers, which are under heavy operating expenses in addition to high insurance rates, wear and tear, etc.

The \$6 rate applies to ordinary general merchandise, including apples, oranges, lemons, limes, bananas, melons, crated potatoes and onions, beets, cabbage, carrots, turnips and similar hardy fruits and vegetables.

Southbound rates on ore are fixed at \$4.50, on whalebone \$20, and on furs and curios \$25 per ton of 2,000 pounds, or forty cubic feet.

Seattle.

Collector Harper of Seattle fined W. J. Schertzer, the owner of a Lake Washington passenger steamer, \$250 for failure to comply with regulations regarding equipment.

The S. S. Dora, which left Seward May 3d for the mouth of the Nushagak, by way of Dutch Harbor, to deliver the United States mails, was stopped two hundred miles from her destination by the ice packs. She was compelled to put back to Dutch Harbor, and there it was found that she was injured in the ice. She immediately proceeded to Seattle for repairs.

The S. S. Santa Ana will be dispatched to replace the Dora on the mail run.

All the California cannery ships bound from San Francisco to Nushagak River and Bristol Bay plants were compelled to put back to Dutch Harbor on account of the ice in Bering Sea.

The 19-ton tug Grayling sailed May 27th for Panama. Owing to the small size of the tug considerable difficulty was experienced in securing a crew to take the trip. It will take 25 days to make the trip down the coast. Captain Martin Chester, who will command the little craft, is more than seventy years of age.

The City Council of Seattle has been petitioned by the various commercial clubs for the construction of a new fireboat to be operated on Lake Washington. There are already two on this duty at the present time, but as a large area of this city faces on the lake the patrol is not sufficient.

A truce has been declared in the rate war which has existed for the last two months between the Canadian Pacific Steamship Company and the International Steamship Company, and the former rate of \$3 for one way, or \$5 for the round trip, has been restored.

The terms of the settlement were as follows: Fare to Victoria restored to old rate of \$2 one way, \$3.50 round trip. Fare on Vancouver route restored to old rate of \$3 one way, \$5 round trip. Steamer Iroquois temporarily withdrawn from the Vancouver run. Steamer Chippewa withdrawn from Victoria run and replaced by Iroquois, leaving Seattle every midnight. Steamer Chippewa to be placed on new excursion route between Seattle and Bellingham, via Port Townsend and Anacortes.

All bids for transporting passengers to and from Alaska for the fiscal year beginning July 1, 1909, and ending June 30, 1910, have been rejected by the Government and it will depend on the regular tariff rates. The

contract for freight in both directions between Puget Sound and Yukon River points, as well as for local freight and the Yukon River and on the upper and lower Tanana, including Fairbanks, was awarded to the Northern Navigation Company. The Schubacher-Hamilton Steamship Company secured the contract for carrying freight between Puget Sound, St. Michael, Nome and Fort Davis. The Southern Alaska freight will be divided between the Pacific Coast, Humboldt and Alaska Steamship Company.

The Chargeurs Reunis has decided to abandon Puget Sound as a port of call on its round-the-world service, and the Admiral Hamelin was the last of the French liners to call here.

Instead of coming to Vancouver and Seattle from the Orient, the vessels will proceed direct to San Francisco, down the west coast and to the continent via Cape Horn. If the grain output warrants it some of the company's vessels will put in here for cargoes.

Owing to the settlement of the rate war between the International Steamship Company and the Canadian Pacific, as the result of which the former company abandoned its Vancouver service, a British steamship, the Rupert City, operated by McKenzie Brothers of Vancouver to Southeastern Alaska, will, in the near future, begin a regular service between Seattle and Prince Rupert. The line from Vancouver to Prince Rupert is in competition with the Canadian Pacific, and in order to look after its passengers and freight from Seattle, the company has deemed it best to make its first sailings from this port instead of Vancouver, as heretofore. She is of 2,536 gross tons, is 310 feet long, of 38 feet beam and was built in 1886.

The Pacific Coast Steamship Company and the Northern Pacific Railroad Company will reduce wharfage rates on box shooks, asphaltum cement, plaster, salt and grain from 50 to 25 cents a ton; to be effective June 1st.

The United States quartermaster's department has invited bids for the purchase of the historic old steamer Zafiro, which is at present lying at the Bremerton Navy Yard. The bids are to be opened June 6.

The steam schooner Washington, owned by C. E. Fowler, which has been tied up at St. John since last fall, will remain out of service on account of the low rates in freight transportation existing at the present time.

A canal 17 miles long, which is being constructed by the United States, will open up a deep channel between St. Michael island and the mouth of the Yukon river. Work on the canal was begun last year and will be resumed again next month. This canal will be the most northerly ship canal in the world.

The United States army transport Dix will reach this port about May 29, with a large cargo of exhibits from the Philippines for the A.-Y.-P. Exposition.

Seattle has long complained of the danger to the waterfront in discharging explosives, and as a result of constant agitation, Possession Point, the southern extremity of Whitty island, will be improved and the explosives accumulated there, to be shipped to Seattle as the retail trade requires. Accommodations for ocean-going steamers with a draft of 30 feet will be provided in the shape of a wharf 300 feet long, which is building at the present time.

The Alaska Steamship Company will in the near future let contracts for the construction of two and possibly three new steamers to be placed on the run from Seattle in connection with the Copper River and Northwestern Railroad. Following the sale of the steamer Pennsylvania to the Pacific Mail Steamship Company, the

Alaska company will dispose of all their old tonnage as soon as possible, superseding them with the proposed steamers, which will have accommodations for 300 first class and the same number second class passengers. They will cost between \$600,000 and \$700,000 apiece.

If the negotiation now in progress for the purchase of the steamers Chippewa and Iroquois is successful, the rate war now going on between the Canadian Pacific and the International Steamship companies will be terminated. The usual rate on the route is \$1 one way or \$1.75 round trip. Several weeks ago the steamers of the International line were offered to the Canadian company, but after some negotiations the officials of the latter company refused to take them. A few days ago the Canadian company took the initiative and made overtures to the International, which the latter are considering.

British capitalists of South America have appealed to the Admiralty for a squadron, with headquarters at Falkland Island, and the British South American squadron, composed of four first-class cruisers will, no doubt, be stationed in the South Pacific.

Portland.

The French bark David d' Angers arrived at London from Portland 150 days out. She will return to Portland for wheat loading.

The Albers Brothers Milling Company, which operates mills in Seattle, Portland and Tacoma, have bought 550 feet of waterfront property known as Greenwich No. 1 and 2. With their present holdings of 250 feet, this will give the Albers Brothers a continuous waterfront of 800 feet. The company will start the construction of the largest mill in the West on this newly acquired site. The consideration involved was not made public.

The Government has placed an order for 1,000,000 feet of lumber to be used in Government construction at Honolulu. Heavy timbers and lumber for buildings, wharves and fortifications now in the course of construction at Pearl Harbor, the island naval station, will constitute the order. A schooner will be despatched from San Francisco to carry the shipment.

The new drydock under course of construction in the lower harbor for the Oregon Drydock Company, will be completed late in June. The dock is in one section, 345 feet long and 76 feet wide, and is designed to carry a weight of 4,000 tons.

There is a movement on foot among local steamship and commercial organizations to inaugurate a regular steamship service between Portland and Alaska. This proposal was first brought into existence through the unusual freight and passenger conditions on Puget Sound, where all accommodations have been taken up on all the steamers sailing for the next three months.

The steamer Roanoke, belonging to the North Pacific Steamship Company, will be placed on the Portland-San Pedro route May 29, instead of on the Seattle-San Pedro run in connection with the Admiral Sampson, as an early report stated.

The Roanoke is at the present at the yards of the Risdon Iron Works of San Francisco, having new boilers installed and her machinery generally overhauled. Her passenger accommodation will be greatly increased and she will have a 24-foot beam and 7-foot draft.

Vancouver, B. C.

The Chicago, Milwaukee and St. Paul Railroad is contemplating the establishing of a line of steamers between Victoria and Seattle to compete with the Canadian Pacific line now operating. The Milwaukee road will doubtless

charter two vessels from the Pacific Coast Steamship Company.

The Norwegian steamer Transit has been taken on time charter for four months by a party of Englishmen who will use her in a pleasure and hunting expedition along the Siberian Coast.

The Canadian Pacific Steamship Company intend to send to the Pacific, for service between Vancouver and Hong Kong via Yokohama and Shanghai, the Empress of Britain and the Empress of Ireland, now operating on the Atlantic. The company is now building two 20-knot steamers, propelled by a combination of reciprocating engines and turbines, to supersede the vessels which will be sent to the Pacific.

Victoria, B. C.

The wreck of the four-masted schooner Soquel, lost on Seabird Rocks, near Pachen, in January, was sold for \$15 to Leeming Brothers. J. Thornton of Seattle bought the sails and blocks for \$119 and the gear was sold for \$300.

A new steamship service, which in its development promises a considerable augmentation of trans-Pacific tonnage, is inaugurated by the Aymeric of Andrew Weir & Co.'s Bank Line, just arrived from Manila, Hongkong and Yokohama, under a working contract with the Canadian Pacific Railway, by which the Lennox and associate freighters are dispensed with. Bank liners—the Suveric, Kumeric, Inveric, Gymeric, etc.—have heretofore been paying regular visits to the ports of British Columbia and Puget Sound, but until now without the support of cargo-contributing railway affiliations. The latter, just secured, are believed by the owners to be sufficient to justify the placing upon the route of the best freighters. Scottish shipyards can turn out, and orders for three such have been placed and construction begun at the yards of the Russells, Port Glasgow. These new vessels, which will replace the steamers at present employed in the trade as soon as they can be got ready, will be of 15,000 tons register, ultra-modern in every detail of design and equipment, and capable of developing sixteen-knot speed, although thirteen or fourteen knots will be the normal steaming. In type these new Bank liners will resemble the familiar vessels of the Holt Blue Funnel Line, to which Andrew Weir & Co., who are old rivals of the proprietors, have long desired to give battle. Names for the new liners have not yet been selected, but they will conform to the fad of the owning company, each ship's name comprising just seven letters, with the terminal "ceric." As the fleet already includes the Aymeric, Boveric, Comerice, Duneric, Elleric, Feric, Gymeric, Inveric, Juseric, Kumeric, Suveric, Tymeric and Yoserice, choice is left of the initial letters H, L, M, N, O, P, Q, R, U, V, X and Z. The total of steam and sail craft flying Andrew Weir & Co.'s flag is now 149, with additions constantly being made to the long list, so that the Bank Line is but one division of their floating property. The Aymeric sails again for Oriental ports in a fortnight, Victoria being her last port of departure as her first port of call. Under the new arrangement Manila is the Oriental terminal, and the ports of call Hongkong, Shanghai, Kobe, Yokohama, Victoria, Vancouver, Seattle and Tacoma. The just-completed inward voyage was uneventful, fair weather prevailing, and but a single sail being sighted, the American ship Charles E. Moody, which asked to be reported May 16th in latitude 51 north, longitude 150 west. Just before the Aymeric left Japan, announcement was made of the establishment of yet another new steamship connection with America, the Osaka Shosen Kaisha putting on a line of steamships chiefly devoted

to freight carriage, between Yokohama and Puget Sound, in association with the C., M. & St. P. Railroad. No calls will be made at Victoria by the vessels of this new service.—S. F. Examiner.

Port Townsend.

The American bark Sea King has been sold to New York parties, and the ship will commence loading immediately for the east coast, where, upon arrival she will be converted into a barge. This is the third ship to be sold for that purpose, namely, the J. B. Thomas and the Henry Failing, the former at the present at Tacoma loading lumber for New York, to be dismantled upon arrival, and the latter at San Francisco on a similar charter.

Astoria.

Out 300 days from Antwerp with a cargo of cement consigned to Astoria, the British bark Gulf Stream arrived May 29th. She made three attempts to round the Horn, and twice was driven back to Port Stanley.

The Standard Oil Company has engaged the steamer Santa Cruz, owned by the Puget Sound Salvage Company, to salvage the stranded tank barge No. 91.

Eureka.

Commencing the early part of June the North Pacific Steamship Company's steamers, the Roanoke and Geo. W. Elder, will leave Eureka on Friday, instead of Saturday, as formerly. As soon as this schedule is inaugurated one steamer will leave San Francisco on Friday for the south and the other for the north.

Seward, Alaska.

SEWARD, May 23.—Bringing 194 survivors of the wreck of the ship Columbia near Unimak Pass, with a story of suffering and heroism seldom exceeded in the annals of the deep, the mail steamer Dora arrived in port yesterday.

The Dora is a small vessel, 300 tons gross, with accommodations for eighty-six passengers, and the stanch craft, the hero of numerous adventures of the sea, fairly bulged with her load of 240 human beings. They were piled in everywhere, sleeping in life boats, in the hold, in chain locker, cabin, all over; thus had they come 1,000 miles from the scene of the loss of the Columbia.

Following the grounding of the vessel, bound from San Francisco, in a blinding snowstorm, eight miles east of Unimak Pass, on the night of April 30th, the experiences of the passengers and crew of the Columbia, as they told them here, were harrowing in the extreme, but stout hearts triumphed.

There was no wind at the time, but a terrific surf was raging from a storm of the previous night. On the vessel were fifty-three Italians, ninety-six Japanese and the remaining forty-five were Americans and Scandinavians. All, including the Japanese, were passive and obedient in the face of danger save the Italians, who in panic raved and prayed.

On the morning of May 2d a storm caused the final abandonment of the wrecked Columbia to the elements. The same day the ship burned to the water's edge. The value of the cargo is \$85,000, of the ship \$15,000. Besides this \$100,000, there is lost also the chance for a summer's pack of 300 gross cases, as the cannery will be idle. The men will lose their summer's wages.

SOUTHERN COAST NOTES.

Long Beach, Cal.

The municipal harbor commission, appointed by the city council to formulate a report on the advantages of purchasing frontage on the inner harbor from the Los Angeles Dock and Terminal Co., has finished its labors

and proposes the following recommendations: That the city purchase 1,823 feet of frontage on Channel No. 3, Slips Nos. 4 and 5. Price, \$200,000; \$150,000 to be paid when bonds are issued, \$50,000 when channel is dug to depth of 21 feet. Cost of wharves and bulkheading work, \$45,000. Total bond issue, \$245,000. Election to be called within 30 days, to be held within ninety days. No liquor can be sold on the property. Present wharf work proposed, 468 feet with a width of 95 feet on Channel No. 3, and 140 feet on Slips 4 and 5; total frontage proposed for wharves at this time, 748 feet. The bond issue was recommended divided as follows: \$200,000 for the land; \$35,000 for the construction of the wharf, bulkheads and sunken tracks on Channel No. 3 and Slips Nos. 4 and 5; \$10,000 for construction of passenger and excursion wharf and ferry slips at the entrance of the channel described.

The ocean entrance of the Long Beach harbor will be open to navigation about June 1.

San Pedro.

The local custom house report for the month of April, 1909, follows: Domestic—Receipts—Lumber, 45,002,000 feet; shingles, 19,171,000; laths, 4,652,000; shakes, 146,000; ties, 29,658; piles, 621; posts, 3,000; shooks, 26 tons; flour, 311 tons; grain, 3,925 tons; general merchandise, 4,430 tons; wool, 149 bales; sheep, 525 head; horses, 4 head; refined oil, 5,000 barrels; marble, 11 blocks; dredger outfit, 1. Shipments—General merchandise, 3,682 tons; sugar, 50 tons; champagne, 850 cases; crude oil, 80,800 barrels; sherry, 8 octaves. Foreign—Imports—Fertilizer, 800 bags; nitrate, 7,345 bags; pig iron, 875 long tons; cake, 1,857 long tons; firebrick, 10,000; whisky, 350 cases; whisky, 6 octaves; mineral water, 35 casks; gin, 992 cases; granite, 19 cases; bath brick, 400. Exports—Merchandise, 35 tons. Passengers—Arrivals—Domestic, 6,359; foreign, 10; total, 6,369. Departures—Domestic, 6,833; foreign, 12; total, 6,845. Vessels—Steamers, 148; schooners, 15; yachts, 1; tugs, 2; dredger, 1; United States vessels, 2; foreign steamers, 4; foreign ship, 1; foreign cruisers, 2. Total, 176. Tonnage—Steam, 104,506; sail, 8,664. Total, 113,170. Seamen—Steam, 4,922; sail, 152. Total, 5,074. Catalina Island (included in above)—Departed—Passengers, 4,987; freight, 281 tons. Arrived—Passengers, 4,014; freight, 36 tons.

The new electric dredger built for the Outer Harbor and Dock Company for work on Miner fill is now completed and will be ready for operation by July 1st.

The work for which this dredger was built will require three years, working twenty-four hours a day, although under the terms of the contract the company has five years in which to complete the work.

The wreck of the Associated Oil barge Roderick Dhu has been abandoned, and the crew, who were dismantling the wreck, finished their labor May 25th, and the following day the wreck was blown to pieces with dynamite in order to secure many valuable brass fittings and pieces of iron which could not be otherwise removed.

The extensive dry docks which are now being built by the Mexican Government at Salina Cruz will soon be finished. In a few months the last dredging will have been done and the docks will be ready for use. The important port of Salina Cruz will thus be equipped to accommodate any of the ships which are now in use on the Pacific, and will form a convenient halfway point for vessels running along the west coast between South America and the United States.

At present there are no such facilities at any North American port south of San Francisco, and the new improvement will mean a great deal for the port.

To ferry across the Puget Sound patrons of the Alaska-Yukon Exposition during the big show, the steamer City of Long Beach started June 1st from her berth at San Pedro. She will be in Seattle or in North Pacific ports permanently. She will be taken to San Diego Thursday for repairs.

The officials of the Nelson Navigation Company say that there is not sufficient business here to warrant them to overlook the munificent offer made by the Exposition authorities. The City of Long Beach is a boat 136 feet long, 22 feet beam, and has accommodations for 225 passengers, registered tonnage 264. She will take a full crew from Long Beach. It will cost \$1500 to get the boat to Seattle.

MANZANILLO.—The merchants engaged in the shipping business at this port report a slight but gradual increase in coastwise shipping business, made up of consignments of assorted merchandise to points in both directions, but principally southward.

It is feared, however, that the importance of Manzanillo in the coast trade will be considerably impaired by the recent opening of Mazatlan and Culiacan to general traffic as a result of the completion of the Southern Pacific Railway.

The limitation of the railway service into this place, owing to the newness of the line, which, in many portions requires constant attention where the right of way has been made over extremely difficult ground, has been a disappointment to many would-be shippers who had led themselves to believe that the completion of the track would give an immediate first-class service between Guadalupe and the coast.

NOTES.

A meeting will be held in London on June 21st next, among the leading meteorologists of the principal nations of the world, to perfect a system whereby warnings of approaching storms and other disturbances of the elements can be flashed around the world by wireless telegraphy; also to decide on the advisability of equipping vessels of all nations with international storm signals.

A local daily paper of Portland published an editorial severely criticising Captain Jessen of the steamer Elder on account of the report which he made to the Hydrographic Office relative to the depth of water on the Columbia River bar, and saying it was reports of that kind which prevent any war ships being sent to the Columbia River. Such an inference is worse than silly. The truth can do no harm and we are sorry to say that, thanks to the constant blocking of improvements at the mouth of the river by a few individuals, the report made by Captain Jessen was the truth.

The reason why it is so difficult to get the Navy Department to order any war ships to the Columbia, it can find one reason in the fake chart of the mouth of the river furnished to Admiral Goodrich, when he was here on the cruiser Charleston about two years ago, a chart which, had he followed it, would have been the cause of wrecking his ship. Fortunately he took a pilot and the cruiser crossed out uninjured. It is not the truth about the conditions on the bar that do injury, but the misleading statements that have been given out for years simply to keep the dredge Chinook from being placed at work at the mouth of the river.

Although the dullness in the shipping world continues, Tacoma's ocean commerce for April shows an increase over the March figures, the total value of exports and imports for the month being \$2,443,699. There is an increase of about \$70,000 over March. The report of Harbormaster J. B. Clift, which was issued yesterday, shows the to-

tal coastwise shipments for April were valued at \$960,000, and the total foreign shipments at \$356,000. Foreign imports were valued at \$499,310 and coastwise receipts at \$628,305.

Lumber shipments for April exceeded those of March by 5,000,000 feet. The coastwise shipments totaled 6,407,568 feet, and the foreign 7,814,824 feet. From 32,000 barrels of flour shipped foreign and coastwise in March, the shipments increased last month to 47,000 barrels. Of this amount 26,120 barrels, valued at \$108,276, went to foreign ports, and 21,011, valued at \$105,842 went coastwise. The coastwise shipments of flour are larger than in several months past.

Vice Consul General E. G. Babbitt forwards from Yokohama the following press clippings giving details of the consolidation of Japanese whaling companies:

With a view to placing the industry on a better and more paying basis, arrangements have been made as to an amalgamation of the Toyo, Dai Nippon, Nagasaki and Teikoku whaling companies, and steps are now being taken toward the buying up of the Naigai, Tokai, Taiheiyo and five other companies. It is expected that the new amalgamated company will be in a position to open business by the beginning of April. The capital of the company is to be \$2,500,000 gold, of which \$1,500,000 will be paid up. B. Maki will be president. The total catch of whales during the year ending August last amounted to 1,790 carcasses. The demand for whale flesh in the country, especially in Kyushu, is steadily increasing, but the export of whale oil has been inactive of late years, owing largely to the depression of trade in Germany. In consequence of the increase in the number of whalers, an average catch of each vessel has decreased in the total. Moreover, the wholesale and indiscriminate slaughter of whales is seriously interfering with the propagation of the animal, and the authorities are said to have in contemplation the adoption of some measures to prevent the reckless destruction of whales as at present.

The administration of Bureau Veritas has just published the list of maritime disasters, reported during the month of February, 1909, concerning all flags, as follows:

Total losses: Sailing vessels, 12 American, 21 British, 1 Chilean, 6 French, 1 Greek, 4 Italian, 9 Norwegian, 3 Russian, 3 Swedish; total 60. In this number are included 6 vessels reported missing. Steamers, 1 Argentine, 2 Belgian, 9 British, 1 Chinese, 3 French, 2 Greek, 2 Italian, 3 Norwegian, 1 Portuguese, 1 Russian, 1 Spanish, 1 Swedish; total 27. In this number is included one steamer reported missing. Causes of losses—Sailing vessels, stranded 29, collision 1, foundered 1, abandoned 3, condemned 20, missing 6; total 60. Steamers, stranded 10, collision 3, fire 1, foundered 1, condemned 11, missing 1; total 27. Accidents—Sailing vessels—The following casualties are reported: Stranding 23, collision 31, fire 1, leaky 15, stress of weather 44; total 114. Steamers—Stranding 74, collision 152, fire 22, leaky 4, stress of weather 53. To engines and boilers 55; total 360.

WASHINGTON, D. C.—The controversy between the United States and the owners of the line of steamships employed to transport prisoners from Manila to Spain after the close of the Spanish-American War over the rate of payment for the passage of non-combatants, was the basis of a decision handed down yesterday in the Supreme Court of the United States, which decided adversely to the Government.

The firm contracted to carry all officers to home ports for \$215 each, and all private soldiers and others for \$73 each.

When the work had been completed the steamship firm put in a bill for \$1,837,841, of which all but \$293,246

was paid. The firm then brought suit for the remaining amount, claiming the transportation of the wives and children of Spanish officers should be paid for at the same rate as the husbands and fathers. The Government resisted the claim and the court of claims sustained the Government's contention.

Justice White announced the court's decision reversing the decision of the court of claims and ordering the payment of the full claims.

Under the signature of Ormsby McHarg, acting secretary, the Department of Commerce and Labor has issued a circular to whom it may concern in reference to the laws for the protection and regulation of the fisheries of Alaska. These acts are those of June 14 and June 26, 1906.

Under the law of June 26th persons or corporations engaged in canning, curing or preserving fish or manufacturing fish products are subjected to certain taxes while special regulations and instruction are promulgated governing the business. The second law prohibits aliens from fishing in Alaskan waters. The department circular suggests that persons engaged in the fish business and officers of the department supervising Alaskan fisheries familiarize themselves with the regulations.

The acting secretary makes public the following:

"During the inspection of the salmon fisheries by the agents and representatives of this department, they shall have at all times free and unobstructed access to all canneries, salteries and other fishing establishments, and to all hatcheries.

"All persons, companies or corporations owning, operating or using any trap-net, pound-net or fish-wheel for taking salmon or other fishes shall cause to be placed in a conspicuous place on said trap-net, pound-net or fish-wheel the name of the person, company or corporation owning, operating or using same, together with a distinctive number, letter or name which shall identify each particular trap-net, pound-net or fish-wheel, said lettering and numbering to consist of black figures not less than six inches in length, painted on white ground.

"All persons, companies or corporations engaged in canning salmon shall forward to the bureau of fisheries, Department of Commerce and Labor, Washington, D. C., three copies of each and every different can label which it is designed to place upon the canned product."

The building plan of the United States Navy for the fiscal year 1911 will call for two battleships of the most advanced Dreadnaught type, also seven torpedo-boat destroyers and one modern repair ship for the fleet, notwithstanding the \$10,000,000 decrease which is to be made in the naval estimate by order of the President.

SHIPBUILDING NOTES.

Washington, May 23.—The Bureau of Construction has a lot of work ahead for the Mare Island Yard. The Raleigh and Cincinnati are now there undergoing extensive repairs. The Iris is coming from Manila to be fitted out as a mother ship for torpedo boats and the torpedo flotilla, known as the eleventh fleet, must be repaired completely so that the ships can get out of the yard by the middle of June. This work will all be expedited in order that the yard may not be crowded when the four big armored cruisers—California, South Dakota, Maryland and West Virginia—put in for overhauling and repairs. How extensive these repairs will be to the armored cruisers and how long they will take or at what cost is not known at the department. That will be developed after the naval constructors have had opportunity to survey those big fighting craft.

W. H. Parrish, of Salem, has built a new stern wheel vessel for service on the upper Willamette river. The boat will take the place of the steamer Rough on the run between Salem and Independence. She was enrolled at the Customs-House yesterday. The craft measures 63 feet in length, 15 feet beam and 2.5 feet depth of hold.

L. Bixby, J. F. Craig, H. F. Callahan, P. E. Hatch and Col. W. J. Story were appointed a committee by the Chamber of Commerce of Long Beach to consider the proposition to incorporate a million-dollar steamship company with headquarters at Long Beach. A \$200,000 steamship will, if the special committee reports favorably, be constructed. A subscription of \$35,000 by Long Beach men is all that is needed to insure the construction of a big steamship to run from Long Beach. A San Francisco concern has agreed to subscribe \$100,000; eastern friends of John F. Craig have promised \$25,000 and a loan of \$40,000 can be floated. The cost of the ship will be ordinarily \$250,000, but President Craig says if begun now it can be constructed for \$50,000 less.

The proposed boat is to be used in the coastwise trade between here and Portland on the opening of the Long Beach harbor. The ship will be 260 feet long and capable of carrying 1,500 tons cargo.

S. S. Columbia, which was recently purchased for a run out of Everett, Wash., has completed her repairs at the St. John's shipyards and has left for the Sound.

The company that owns the steamboats Harbor Belle, Harbor Queen and Manette is building a fourth boat, which will be a twin screw vessel and reputed in advance to be built on lines calculated to make her the fastest craft on Grays Harbor. The cost of the new boat, which is to be used as a pleasure craft, will be in the neighborhood of \$22,000.

The new Osaka Shosen Kaisha liner Seattle Maru was launched about May 1st, amid shouts, the fluttering of white pigeons and fountains of colored paper.

The opening exercises of the Dolphin Swimming and Boating Club and the South End Rowing Club were held somewhat jointly Saturday, May 22, at the respective club quarters, located in the sheltered cove adjoining Fort Mason on San Francisco bay.

The character of entertainment rendered to the guests of the occasion predicts the future possibilities of both clubs and reflects credit on the respective entertainment committees. Aquatic games and amusements were indulged in to the satisfaction of all. Refreshments were served throughout the entire day, and those favoring the light fantastic had every opportunity of participating.

The launching of San Francisco's first fire boat, the "David Scannel," took place last Saturday at the Risdon Iron Works. The launching was accomplished on time and in perfect form. The event was witnessed by a large number of interested citizens, including deputations of officials from the various departments of the city government.

A few minutes before 4 o'clock workmen knocked out the shores that held the cradle on the ways and as the steel hull began to move little Ruth Sweeney swung a bottle of wine against the prow. Miss Sweeney is a daughter of John E. Sweeney, a fireman who lost his life nine years ago when he went to the rescue of Pat Coyne in a fire at Eleventh and Bryant streets. He saved Coyne, but paid for his bravery with his life.

The David Scannel and Dennis T. Sullivan will be sister boats in every particular, constructed of steel and of the following dimensions: Length over all 129 feet; length between perpendiculars, 120 feet; beam, molded, 26 feet; depth, molded, 12 feet 9 inches; each to be single deck hull, and deck house over machinery and boilers and raised pilot house forward.

The engines, two for each boat, will be of the compound, direct acting, inverted cylinder type engine, with high-

pressure cylinder of 13 inches diameter, and low-pressure cylinder of 26 inches and a common stroke of 20 inches.

The boilers will be of the straight tube water-tube type, with a working pressure of 200 pounds per square inch and a combined heating surface of 5,400 square feet; will be fitted as oil burners, and equipped with surface condensers, independent air and feed pump, donkey circulating and fuel oil pumps, oil tanks, heaters, etc.

Pumps will be of the multi-stage turbine type, driven by steam turbine engines, two sets in each boat. Experience has shown that pressure of over 150 pounds per square inch is seldom required in fighting fires on the water front. It may, however, occasionally be necessary to pump water

will have some novel features, as, for instance, the telescopic water tower and the twin screw engines, which it is believed will make them superior for fire fighting purposes, even to the New York boats.

Union Iron Works.

S. S. M. Dollar at works for general repairs.

Ferry boat Cazadero at works for new shaft.

S. O. Astral at works for hull repairs.

Steamer General Ring at works for general overhauling and repairs.

Tug Defiance for general repairs.

Steamers Contra Costa, W. S. Porter and Forrest Home are lying at works for repairs.



DAVID SCANNEL TAKING THE WATER, MAY 22, 1909.

into the distributing system or through excessively long hose lines. In this event pressure up to 300 pounds per square inch may be desirable. In order that a maximum capacity may be obtained under each of these conditions, each pumping set will consist of two separate pumps, each capable of delivering 2,000 gallons per minute against a pressure of 150 pounds per square inch. The casing of one of these pumps will be made sufficiently strong to withstand a pressure of 300 pounds per square inch. The suction and discharge pipes will be arranged so that each pump may be connected to draw water from the bay and deliver it into the delivery pipes on the boat, or one pump may deliver water from the bay into the suction of other at a pressure of 150 pounds per square inch, and this pump will increase the pressure to 300 pounds per square inch and discharge into the delivery pipes of the boat. By this means the total discharge capacity of each boat will be 4,000 gallons per minute against 150 pounds pressure, or 8,000 gallons per minute against 300 pounds pressure.

Two monitors and one water tower with interchangeable nozzles up to four inches in diameter are to be fitted on top of the deck house. Portable monitors with nozzles up to two and three-quarter inches in diameter are to be placed one at each end of the boat. In the rail on each side of the boat two sockets will be fitted, to which portable monitors with nozzles up to two and three-quarter inches in diameter may be connected and used for delivering streams alongside of the boat or under a wharf should occasion require.

The pumping capacity of these fire boats will be the same as that of the two New York fire boats, which are considered the finest in the world. The San Francisco boats, however,

Moore & Scott.

Roy Summers on dock for cleaning, painting and overhauling.

A. M. Baxter will follow the Summers on the docks.

Norwegian steamer Eir being overhauled at Oakland Long Wharf.



S. S. SAN NATEL

On Moore & Scott Marine Ways, Oakland, California, May 5, 1909. Length of Vessel, 317 ft.; Beam, 40 ft.; Depth, 24 ft.; Gross Tonnage, 2,927.

The Buford is the first transport ever up the Oakland creek. She is now lying at Moore & Scott's yard.

Pacific Merchant Marine

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ADVERTISING RATES ON APPLICATION
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Legislative efforts in the United States to establish a Federal office for the collection and publication of labor statistics dates from April 10, 1871. Honorable Geo. F. Hoar, then a member of Congress from Massachusetts, introduced a bill providing for a commission on the subject of labor. Nothing was accomplished in the matter by the Forty-second Congress, and subsequent sessions dealt with the question until finally the United States Bureau of Labor was organized in January, 1885. On February 4, 1885, the Commissioner of Labor addressed a letter to the honorable Secretary of the Interior, declaring the policy of the office, in which he stated, "It should be remembered that a bureau of labor cannot solve industrial or social problems, nor can it bring direct returns in a material way to the citizens of the country; but its work must be classed among educational efforts, and by judicious investigations and the fearless publication thereof it may and should enable the people to comprehend more clearly and more fully many of the problems which now vex them."

As a result of a bill introduced by Congressman O'Neil of Missouri the Bureau of Labor was absorbed by the Department of Labor, and the latter by the newly created executive department known as the Department of Commerce and Labor, organized July 1, 1903.

To the Department of Commerce and Labor is largely due the prosperity of the United States, of which the annals of human affairs has furnished no example.

The true intent and purpose of the Department of Commerce and Labor is best made known by quotation from a recent bulletin as follows: The altruistic spirit of the age undertakes to ascertain what social classes owe to each other, and statistical science helps the world to the answer. Generally three answers may be given to the inquiry. If we say social classes owe nothing to each other, then society retrogrades to semi-civilized heathenism, and neither social science nor statistics has any place among the departments of human knowledge. If the answer is that social classes owe everything to

each other, then socialism is the logical form of social organization. But if the answer is in the spirit of 'inasmuch as ye have done it unto the least of these, ye have done it unto me,' then we have put the Christian religion into social science, have answered the question rationally, and must have the light of facts in order that the action, either of governments or of communities, under the spirit of this answer, shall not be either futile or absurd. Altruism is the rule of the day as against the individualism of the past. Its tendency must be guided by facts, and facts can be gained only by the most faithful application of the statistical method, not only in the gathering thereof, but in the application. Personal observation on which to base conclusions is not sufficient. Very many illustrations might be given of this fact, but they are hardly essential. The assertion can be made, however, without fear of contradiction, that very many conclusions have been deduced from mere observation which the facts, when properly classified, show were erroneous. The attempt to compare criminal conditions through criminal statistics, the use of city criminal statistics as against those belonging to the country, the acceptance of one line of statistics relative to moral conditions when two or three are essential—all these directions in which the statistical method is used teach us that ordinary observation is too faulty, at least for legislative purposes. So the character of the work of an office having the function of the Department of Commerce and Labor must be based upon the Baconian idea of securing the facts before taking the action.

The critical character of the work of the Department involves the closest application of the statistical method; and has been entirely free from expressions of opinion on any point. Preferably and practically the purpose of the Department is to present the facts and make them accessible to our citizens.

The work of the Department is not confined to conditions in the United States. Every possible source of information pertaining to the commerce and labor of every civilized and uncivilized country on the face of the globe is carefully investigated, carefully compiled by statistical experts, special agents and efficient clerks, messengers and watchmen. The published reports and bulletins of the Department are the recognized text books for the study of the commercial and labor conditions of the world. Supply and demand have much to do with the adjustment of labor problems, and which is confined to our own limited sphere as compared with the rest of the world. Protection has raised the American workman to his present condition. Commerce is governed by a more expansive principle; more than one question is involved, several times more than one interest is involved, and many times more than one influence is retarding the progress of American commerce. One question only determined the rights of an American workman; how best to raise him above the mediocre condition of his foreign competitor. Protection gave birth to his present power and American industrial supremacy.

Ordinarily all questions of national and international importance could be decided as would the correspondence of the average commercial transaction, yet volumes have been written on the subject of the American merchant marine. The vast amount of literature distributed by the Department of Commerce and Labor is irrefutable evidence of the difference between American opulence and American power, why the former is commended and the latter deplored. Every article written, address delivered, and argument made in favor of the American

merchant marine is substantiated by facts and figures contained in the statistical reports of the Department of Commerce and Labor. Every consular and trade report received at the national capital comments upon the rapid loss of foreign trade by the United States, attributing this fact to the absence of American vessels in the carrying trade. Every seaport town in the world, once bound to the United States by the ties of respect and American-made goods and products, must now negotiate with us through a foreign agency. The basic principle of all world powers has been handed over to selfish interests, and we of today are nursing with a meager hand the flickering life of a once gigantic commerce.

Once so palatable, the nation is now sick of the name. Ship subsidies; alas, has this popular and efficient policy also been adulterated? Possibly the application of the true purpose and principles of the pure food law would reveal the constituents of the adulteration. If the fate of the United States depended upon a foreign commerce by the analysis suggested, from what class of citizens in the community would the experts be selected? Railroad interests represent a greater amount of invested capital than any, and many others collectively of the industries of the United States. Railroads have but one recognized competitor, namely, a merchant marine. And why is the merchant marine the competitor of the railroad? For the identical reason that the late Collis P. Huntington, president of the S. P. R. R., opposed the building of the Panama Canal by the Government, and who was eminently successful in delaying the construction of same, and whose associate, the late Senator Stanford, endeavored to create railroad business by locating the city of Stockton, Cal., at Lathrop, a number of miles from tide water, and who was made wealthy by Government subsidies for the building of the Central Pacific Railroad, and operation of the Pacific Mail S. S. Co., and located his palatial home on Nob Hill, where, as stated, he could view without obstruction the wonderful commerce of the Pacific Coast.

Later efforts to destroy competition by water with the railroads are flagrant and crude indeed. The proposed rates for transcontinental shipments of freight, although somewhat premature, is a direct blow at water competition of the Isthmian canal. Fortunately merchants on the Pacific Coast are not alone affected by the proposed changes in railroad freight rates. All seaboard cities in the United States made terminal points by the railroads will be discriminated against and all terminal points hereafter to be established will be situated as far from the coasts as possible, although the same tactics have been in use by the railroads for a number of years.

A later move on the part of the railroad may prove a boomerang for Pacific Coast merchants. As anticipated in the issue of May 8 of Pacific Merchant Marine, the Pacific Mail Steamship Co., owned by the S. P. Co., withdrew all vessels between Pacific Coast ports and Balboa in the Canal Zone. Nothing has been said, however, that Pacific Mail boats will be entirely withdrawn from the coastwise traffic on the Pacific. Vice versa is the purpose of this movement by the Harriman interests. The recent purchase of the S. S. Pennsylvania to replace the ill-fated Indiana indicates that railroad interests are forming a complete organization, and systematic policy to divert every possible ton of freight from the Isthmian Canal in favor of the Tehuantepec railroad and Salina Cruz as a port of entry on the Pacific. Other possibilities exist by which Pacific Coast ports will lose considerable traffic by this aggressive movement of the railroads.

THE PROPOSED AQUATIC PARK IN SAN FRANCISCO.

The special election called for on June 22 in this city to authorize the issuance of bonds will provide for the purchase of land for and construction of an aquatic park. The Aquatic Improvement Association of San Francisco has taken preliminary steps in the matter and obtained data and information, showing the feasibility of the project. As proposed by the Association, the park will concentrate at one point many, if not all of the desirable marine features of the harbor, including harbor for yachts, rowing and motor boats, aquarium, swimming pool, fishing wharf, music stand and children's sections.

Contained in the features of the Aquatic Park are some of the resources of this city, which, when appreciated and properly developed, will raise San Francisco to an enviable position among the cities of either the new or old worlds. Each step in the development of San Francisco would have seemed incredible in five-year periods; the progress and rehabilitation of the past three years is unprecedented. By nature chosen the commercial umpire of the Pacific; by the same beneficent hand favored climatically as no other city in the world; by materialism only has San Francisco advanced.

The proposed bond issue for the Aquatic Park does not indicate the initiative by this city, for the municipal ownership of yacht harbors, aquariums, public baths, etc. Most cities in Europe own and maintain expensive establishments for these conveniences.

In 1889 Dr. Simon Bausch of New York made a report on the public baths of Germany to the New York County Medical Society, in which he said in part:

"Modern hygiene has, by simplifying the methods of applying its principles, attained remarkable achievements. Its chief advances have been made by the recognition of cleanliness as the essence of true sanitation. Just as the modern surgeon has, by gradual step and deductive reasoning, reached the conclusion that in strict cleanliness of his person, of his instruments, and of the surface to be treated is to be found a true asepsis, so has the modern sanitarium come to realize that strict cleanliness applied to the air, to food, to clothing, and to the person fulfill's the chief indications to true hygiene.

"This learned body does not need to have the importance of personal cleanliness impressed upon it by stilted phrases, nor need your committee dwell upon the immense sanitary advantages accruing from the maintenance of the functions of the skin by the disciplinary and depurative action of the bath. These are truisms which even the lay public are sufficiently familiar.

"The baths which our city authorities have wisely and efficiently provided during the summer months have proved successful in the encouragement they have given to that portion of the community whose only means of obtaining a bath is in our open waters. Cleanliness and recreation are thus secured to a large portion of the community.

Your committee would recommend the erection of public baths which, by their accessibility and freedom from expense, would tempt the populace into the practice of bathing as a habit. This would be bathing for cleanliness, a true sanitary measure whose power for preventing the origin and spread of disease need not be insisted upon in this society. The problem has already been practically solved in Germany, where, under the stimulus of Lassar's labors, public baths have been erected in several large cities, which fulfil their objects most admirably, and which may serve as examples of worthy imitation."

In the United States many of the States have legislated on this subject. In Massachusetts, sections 20 and 21, chapter 25 of the Revised Laws of 1902, are as follows:

"Section 20. A town which accepts the provisions of this and the following section, or has accepted the corresponding provisions of earlier laws, by a two-thirds vote at an annual meeting, may purchase or lease lands, and erect, alter, enlarge, repair and improve buildings for public baths and washhouses, either with or without open drying grounds, and may make open bathing places, provide them with the requisite furniture, fittings and conveniences, provide instruction in swimming, and may raise and appropriate money therefor.

"Section 21. Such towns may establish rates for the use of such baths and washhouses, and appoint officers therefor, and may make by-laws for the government of such officers, and authorize them to make regulations for the management thereof and for the use thereof by the non-residents of such town."

The following law was enacted by the State of New York in 1895 and reads as follows:

"Section 1.- All cities of the first and second class shall establish and maintain such number of public baths as the local board of health may determine to be necessary; each bath shall be kept open not less than 14 hours each day, and both hot and

cold water shall be provided. The erection and maintenance of river or ocean baths shall not be deemed a compliance with the requirements of this section. Any city, village, or town having less than 50,000 inhabitants may establish and maintain free public baths, and any city, village or town may loan its credit or may appropriate its funds for the purpose of establishing such free public baths.

"Section 2. This act shall take effect immediately."

Washington, D. C., maintains a public bath by an act of Congress, approved September 26, 1890.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioners of the District of Columbia are hereby authorized and permitted to construct a beach and dressing houses upon the east shore of the tidal reservoir against the Washington Monument grounds, and to maintain the same for the purpose of free public bathing under such regulations as they shall deem to be for the public welfare; and the Secretary of War is requested to permit such use of the public domain as may be required to accomplish the objects above set forth.

Section 2. That the sum of three thousand dollars is hereby appropriated from the revenues of the District of Columbia, to be immediately available, for the purpose of this act.

Pursuant to this law a portion of the tidal reservoir beach, containing about three acres and lying immediately west of the monument, was set aside, with the approval of the Secretary of War, for use as a public bath station.

Many cities in the United States have established and maintain large establishments as public baths, many of which depend on artificial water supplies. Among these cities may be mentioned the following:

Albany, N. Y.....	1	Minneapolis, Minn.	1
Baltimore, Md.....	5	Newark, N. J.	3
Boston, Mass.	24	Newton, Mass.	1
Bridgeport, Conn.	1	New York, N. Y.	4
Brookline, Mass.....	1	Philadelphia, Pa.	15
Brooklyn, N. Y.....	3	Portland, Me.....	1
Buffalo, N. Y.....	2	Providence, R. I.....	1
Cambridge, Mass.	1	Rochester, N. Y.	1
Chicago, Ill.	12	St. Paul, Minn.....	1
Cleveland, Ohio	3	Springfield, Mass.....	1
Detroit, Mich.....	1	Syracuse, N. Y.....	1
Hartford, Conn.	1	Taunton, Mass.	1
Hoboken, N. J.	1	Troy, N. Y.	1
Holyoke, Mass.	1	Utica, N. Y.....	1
Kansas City, Mo.	1	Washington, D. C.....	1
Louisville, Ky.....	1	Worcester, Mass.	2
Milwaukee, Wis.	5	Yonkers, N. Y.	2

Statistics from a few of the cities mentioned show the number of baths furnished for the fiscal year ending June 30, 1904: Baltimore, 175,000; Boston, 1,715,119; Brooklyn, 1,177,675; Chicago, 985,862; Philadelphia, 4,453,108.

The North End municipal baths of Boston represents an investment of \$461,200, of which amount \$331,200 was for the land and \$130,000 for construction and equipment.

The season quoted for Philadelphia was for the year 1902, the season lasting from June 15 to September 20, during which time the total attendance at the fourteen baths in operation amounted to 4,453,108 persons. The total expenditures for the year were \$11,000, making a cost to the city of only about one-fourth of a cent for each bath given.

San Francisco, with superior advantages in harbor facilities and adjacent waters for pleasure boating, aquariums, fishing and climate, may look with favor on the Aquatic Park as proposed by the Aquatic Improvement Association of San Francisco. The city has outgrown the five-year period. Recent events in upbuilding, and the commercial possibilities afforded by the Panama canal have drawn attention to California, compared with which the discovery of gold sinks to insignificance.

Previous articles in Pacific Merchant Marine give statistics on the importance of the fishing industry of San Francisco as applied to the proposed Aquatic Park. Future articles will treat of the advantages to be derived from due recognition of pleasure boating on San Francisco Bay.

MEETING OF THE STATE BOARD OF HARBOR COMMISSIONERS, MAY 27, 1909.

National Packing Company made application for twenty-five year lease of that portion of Seawall Lot No. 4, occupied by them. No action was taken on the application.

Midland Warehouse Company made application for a twenty-five-year lease of that portion of Seawall Lot No. 4 assigned to them, and also that portion north of harbor spur track bounded by Kearny and East streets. No action was taken on the application.

Secretary was directed to solicit proposals for the lease of each portion of said Seawall Lot No. 4.

Request of the Thomson Bridge Co. that they be allowed extra compensation beyond the unit prices of repair contract for certain work on the rebuilding of the pier between slip No. 3 and No. 4, was denied.

The sum of \$1,926.45, due W. L. Graff, contractor, for furnishing materials and constructing a shed on pier No. 21, was ordered paid.

The sum of \$9,527.26, due the Mercer-Fraser Co. for furnishing materials and constructing a wharf along Illinois street, was ordered paid.

The bill of Robert Wakefield, contractor, for furnishing materials and constructing pier No. 40, amounting to \$11,340, was ordered paid.

The bill of the Healy-Tibbitts Construction Company, contractors, for furnishing and constructing pier No. 38, amounting to \$48,127.50, was allowed and ordered paid.

The sum of \$187.50, due J. I. Mitovich for furnishing materials and constructing a shed on pier No. 8 (Howard-street wharf No. 2), was ordered paid.

The sum of \$270, due John G. Sutton Co. for furnishing and installing two hot water heating plants for offices on pier No. 44, was ordered paid.

The sum of \$240, due the Healy-Tibbitts Construction Co. for furnishing material and labor for the construction of a concrete bulkhead at Jackson street wharf, was ordered paid.

Bill in favor of R. W. Hunt & Co. amounting to \$117.50 for testing 2,350 barrels of cement, was ordered paid out of the San Francisco seawall fund.

The sum of \$2,207.94, due the Gray Bros.' Crushed Rock Co. for furnishing rock on the construction of section No. 11 of seawall was ordered paid out of the San Francisco seawall fund.

Informal bids for the construction of a 4-yard clam-shell bucket for State dredger No. 3, will be called for.

Plans and specifications for two office buildings at pier No. 3 were adopted. The estimated cost of the work is \$12,500.

The eighty-five days allowed on the contract with the Gray Bros. Crushed Rock Co. for completing section No. 11 of the seawall will expire on June 7, 1909, and the Secretary of the Board was directed to confer with the attorney relative to what steps shall be taken looking to the enforcement of the penalty and the completion of the work.

The engineer of the Board was directed to prepare specifications for Blake patent casings for piles, and to invite informal bids for same.

The secretary of the Board was directed to collect from the Gray Bros. Crushed Rock Co. rental for State's scow at the rate of \$10 per day.

MEETING OF THURSDAY, JUNE 3, 1909.

Assignment of a berth space of 127 feet on the north side of Mission No. 1, commencing 336 feet from the outer end of said wharf and extending toward the shore, made to the Oakland Transportation Co. on May 1, 1908, was rescinded, taking effect June 1, 1909.

Hickman & Masterson Co. vacated Seawall Lot B, excepting a strip of 100 feet from Mason, between Jefferson and East streets.

The secretary of the Board was directed to advertise for the leasing of Seawall Lot B.

Pacific Coast Coal Co. asked to be assigned space on pier No. 32 when completed, or on some other pier in close proximity to their property, for the purpose of discharging coal vessels.

The secretary was directed to collect \$500 from the California Transportation Company for their share of the expenses in the raising and improving their office building at Jackson street bulkhead.

Space at Jackson-street wharf, rented to the U. S. navy for dockage of the U. S. tug Unadilla, and other yard craft, at the rate of \$25 per month, beginning July 1, 1909.

The bills of the Thomson Bridge Company for repairing wharves, piers, bulkheads and ferry slips during the month of May, 1909, as per contract, amounting to the sum of \$6,249.46, were allowed and ordered paid.

The request of the California Wholesale Butchers' Traffic Association for a reduction on cattle from five cents per head to three cents per head was denied.

The assignment of 140 feet on the north side of Mission-street wharf No. 2, commencing 275 feet from the bulkhead and extending easterly, made to B. H. Tietjen on April 25, 1908, was rescinded.

A berth space of 140 feet on the north side of Mission-street wharf No. 2, commencing 275 feet from the bulkhead and extending easterly, was assigned to Swayne & Hoyt at \$70 per month rental.



YACHTING SECTION



THAT yachting is by no means on the decline around San Francisco bay was evinced last week by the successful cruise of the boats belonging to our principal yacht clubs, to Vallejo and Napa.

This event, lasting from Saturday to Monday, is the most interesting and important which has been pulled off this season and was pronounced a great success by all who participated in it. The Vallejo

Yacht Club was in gala attire to receive the visiting yachtsmen and everyone was made to feel as though he owned the place. The club's anchorage was taxed to its utmost capacity, many of the boats being forced to lie out in the stream with the government vessels. It is hard to say just how many yachts were moored off Vallejo Sunday morning but a rough estimate places the number, including the Vallejo Yacht Club fleet, at easily a hundred and fifty. In addition to these the Pacific Motor Boat Club fleet and a majority of the motor boats from the lower bay were present to witness the final races between Konocti and General II, these races also attracting a large number of interested spectators from cities about the bay and who poured into Vallejo by every train and steamer Monday morning.

After the motor boat races the visiting fleets of yachts got under way and started for their respective club anchorages in handicap races for pennants and other trophies given by each club.

The clubs represented were the Corinthian, California, Golden Gate, San Francisco, Aeolian and the Pacific Motor Boat Club.

* * *

The 28-foot sloop which has been building in Pete Swanson's shop at Belvedere for the MacCarthy brothers of Greenbrae was launched last Sunday. She is of the semi-keel type with center board under the cabin floor and is expected to be very speedy. She will be given her trial trip tomorrow.

* * *

Bob Tittles' 25-foot motor boat was launched from the shop of Klarman & McAdam at Tiburon Friday evening. She is equipped with an 8 h. p. Regal engine and is to be used for fishing and cruising about the bay.

* * *

There is a general feeling of gratification among the Corinthians that the sloop Nixie, formerly owned by Commodore Fulton Berry, is to remain in the club. She was bought in at auction by Billy Leavitt.

* * *

Al Dondero, of the California Yacht Club, has placed his sloop Sea Fox in the hands of the Pacific Launch and Yacht Exchange for sale.

* * *

The Encinal Yacht Club held its official opening and jinks at the clubhouse in Alameda, Saturday, May 29th.

* * *

There is some talk among the motor boat people of a

race to Santa Cruz. We hope it will pass the stage of mere talk and come to a reality. These ladylike cruises around the coves on a Sunday afternoon are all right but they don't boost the game ahead and they make you motor-boat men the laughing stock of the more venturesome yachtsmen.

* * *

The schooner Marian is now moored off the Corinthian Yacht Club for the season. It is reported that she has been purchased from Abraham Meyer by her builders, Stone and Van Bergen.

* * *

The sloops Corinthian and Presto were tried out on Sunday, May 23rd, to ascertain which would be sailed in the challenge race to be held shortly for the McDonnough cup. Corinthian proved the speedier and has been finally selected as the defender.

* * *

The yachts of the California fleet start on a week's river cruise Saturday, June 5th.

* * *

The motor-yacht Bonita met with a mishap Sunday night while going under the bridge at Greenbrae, in which the skylight was torn off and the noses of Capt. George



Briggs and Doc Coney, one of the crew, were slightly damaged.

* * *

Anyone who has piloted a windowed launch in the rain will readily agree that seeing any distance ahead, owing to the rain drops sticking all over the glass, has proven a difficult task.

To obviate the difficulty wipe off the moisture and then rub the outside of the glass with a piece of cloth soaked in glycerine. The glass will at first appear dull but as soon as it is rained upon, will become as clear as though it had been dried.

If glycerine cannot be obtained, kerosene will be found a good substitute. When this has been rained on it is necessary to rub it over with the hand to make the drops of rain run even all over.—The Launch.

The Motor Boat, of London, says that the Delahaye-Nautilus XIII, which attained speed at the rate of 35.7 knots (more than 41 statute miles) an hour in a race at Monte Carlo; the Duc, 35.7 knots or 41 miles, and the Wolseley-Siddeley II, 34.7 knots or 40 miles, are the three



COMMODORE BROADWATER, FLAGSHIP TIGRESS.

fastest motor craft in the world. The Wolseley-Siddeley II recently had her name changed to Ursula. The Detroit Boat Company are the owners of an aero-marine craft built on the order of the hydroplane which they claim makes a speed of 46 knots or 51¾ statute miles an hour. She is equipped with a 50 h. p. motor and wings in addition to her regular propeller an aerial propeller measuring 8 feet from tip to tip.

* * *

Sir Thomas Lipton has disposed of the yacht Shamrock III and that good ship, built at a cost exceeding \$75,000, went the way of its ancestors Shamrock I and II, viz., the scrap pile. Since her defeat by Reliance, Shamrock III has been laid up in Erie Basin, New York harbor, with a wooden house over the hull. All the spars, sails and fittings were stripped off the yacht about a year ago and shipped to Glasgow and used in the construction of the new Shamrock which Sir Thomas raced in home waters last year. There are 90 tons of lead in the hull of Shamrock III and this alone is worth \$6,750.

That Sir Thomas is desirous of again competing for the cup is not to be doubted but before he will build another boat several just changes will have to be made in the rules governing the races, to which the New York Yacht Club still adheres, despite the protests of leading New York yachtsmen that they are not fair to the challenger.

* * *

The South Bay Yacht Club of San Jose has issued a

schedule which includes motor boat races on the following dates: August 22, September 19 and October 10, also cruises on July 3-5, September 4. The officers of the club are: Commodore W. K. Bennett; vice-commodore, A. A. Wright; port captain, T. E. Gibson; secretary, E. N. Wretman; treasurer, E. W. Knox; measurer, S. E. Smith.

* * *

Temporary officers for the new formed Washington Motor Boat Club of Sacramento have been elected as follows: Commodore, J. T. Lefevre; vice-commodore, E. M. Browne; secretary, George A. Mayer; treasurer, C. H. Davis; fleet captain, H. Hock.

* * *

Konocti owned by E. J. Holt of San Francisco is now the champion of the bay and of the Pacific Coast, having defeated General II, formerly owned by E. Forrest Mitchell and B. R. Klume of Sacramento, in both of the two races scheduled at Vallejo on June 1.

It was at first intended to have a series of five races between the two boats but the owners of General II lately disposed of the boat and it was arranged to have two deciding races on Decoration Day. In the absence of Mr. Holt, owner of Konocti, Prentiss Gray has had charge of the boat.

In the first race at Vallejo, General II was beaten by Konocti, 2 min. 45 sec.; the time being 23 min. 4 sec. In the second race General II dropped out on the last leg. The race was over a 10-mile course of five legs.



ALERT, CAPTAIN KENDALL.

The first race at Sausalito on May 8, was held under the auspices of the San Francisco Yacht Club. The boats covered the ten-mile course neck and neck, until near the finish, when General II shot ahead and crossed the finish line two seconds ahead of Konocti. The time was 27 min. 9 sec. It was claimed at the time by the owners of Konocti that her engine was not working properly.

CHARTER MARKET.

Grain chartering for the new season has continued extremely quiet for the past week. There are a large number of sailing vessels taken but as yet the names of any steamers fixed have not been disclosed. Shippers have been chartering heavily for some weeks and now seem disposed to await further developments. As large crops are by no means assured at the present time, the farmers will probably hold for high prices.

"There is a disposition on the part of the steamship owners," says the San Francisco Daily Commercial News, in its weekly review of the Coast charter market, "to get their vessels in the Pacific, under a suitable offer. There will be plenty of them to take part in the coming shipment of grain.

"Lumber chartering is dull in the extreme, both for offshore and coastwise business. Referring to the report in the Commercial News a week ago that a steamer had been taken for Grays Harbor to Port Pirie at 30s, it has developed that it was merely a hoax. In the same issue a fixture from Columbia river to Sydney was reported at 37s 6d—the rate in this case should have read 30s.

"Offshore rates are quoted approximately as follows: Lumber from Puget Sound or British Columbia to Sydney, 30s; to Melbourne or Adelaide, 35s; Port Pirie, 35s; to Freemantle, 37s 6d@40s; to Japan ports (steamers), 30s; Callao, 38s 9d@40s; direct nitrate ports, 38s@40s; Valparaiso for orders, 40@42s 6d; 2s 6d less to a direct port; to South African ports, 50@53s 9d; to U. K. or continent, 50@52s 6d; Guaymas, \$5; Santa Rosalia, \$5.50; Honolulu, \$5.

"The following British steamers have been chartered by the government for coal from Atlantic range to Manila at 11s 9d, May loading: Courtfield, 2,874 tons; Den of Crombie, 3,125 tons; Belle of Ireland, 2,772 tons, and Trafalgar, 2,920 tons.

"Liverpool mail advices give the following fixtures: Hamburg to San Francisco, 14s; Hamburg to Honolulu, 16s 6d, stiffening to Puget Sound 9s; Antwerp to San Pedro, 17s; stiffening to Portland or Puget Sound 7s 6d; Thames to Portland, 6s; Thames to Vancouver, 12s 6d; Antwerp to San Francisco, British steamer Taunton, 18s; nitrate freights firm at 18s 6d to 20s 6d; British steamer Inverlay, transpacific trade, about 2s 8d.

"Weddel, Turner & Co.'s Australian freight report, dated London, April 27, says:

"South Australia—Prompt ship fixed for wheat to Callao at 17s.

"Victoria—Market quiet.

"New South Wales and Sydney—There is nothing doing at present.

"Newcastle—Coal rates are represented by: (Steam) Singapore, 10s 9d; (sail) West Coast, 14s; direct nitrate ports, 13s."

PORT TOWNSEND—According to Capt. M. Samuelson, an arrival in port today with the American barkentine Aurora, thirty-three days from Guaymas, that port offers practically no further market for lumber. At the time of the Aurora's departure for the Sound not a vessel was discharging cargo, and with a large stock on hand it was apparent that no further supply is needed.

During the past year Mexico, with Guaymas leading heavily, has taken many millions of feet of Puget Sound timber. The shipments have been used principally in railroad construction work, which, according to present reports, has been largely completed. The loss of the Mexican market will remove a good customer of Puget Sound mills.

The French bark Francois will load grain at Portland instead of Puget Sound as first reported. She is now lying at London. The British steamer Hadley, coal, from

the Atlantic to San Francisco at \$3.25. The British steamer Strathfillan, coal, from the Atlantic to San Francisco at \$3.40. The British steamer Strathyr, coal, Atlantic Coast to San Francisco at \$3.40. Norwegian steamer Jethou, lumber, Grays Harbor to Port Pirie, Australia. Steamer Romford, lumber, Grays Harbor to North China. British steamer Foxton Hall, time charter to take the place of the Norwegian steamer Sverre.

The British steamers Strathfillan, Strathyre, Strathgyle, Headley, Belle of Scotland, Guernsey, Cape Finisterre, Huttonwood, Hyndford, Riverdale, Baron and Torsfale, aggregating nearly 33,000 tons, have been chartered by the Government for coal from Norfolk to San Francisco or Bremerton, early loading. The Government has also taken four steamers from Norfolk to Manila. The British steamer Willesden, 3,141 tons, and the Dutch steamer Nederland, 2,588 tons, have been fixed for rails from Baltimore to Guaymas. Two other tramps have been taken for coal from Australia to Acapulco.

The Norwegian steamer Eir, time charter from Puget Sound to Peru and Chile, £10,251; British bark Hawthornbank, on Puget Sound, from Hastings Mills to the west coast of South America; barkentine Aurora, on Puget Sound, thence to Guaymas; schooner Susie M. Plummer, from Grays Harbor to Guaymas.

The British tank steamer Seminole will return to the Orient with refined petroleum, having been chartered prior to arrival.

The schooner Forest Home is chartered for lumber from Puget Sound to Guaymas at \$5, and the schooner W. F. Garms, now on the Sound, is engaged for the same business, thence to Santa Rosalia. The bark Sea King, on Puget Sound, has been purchased by New York parties.

Barkentine Hawaii, lumber, from Portland to Auckland at 33s. Steamer Melville Dollar, lumber, from Albion to Guaymas or Mazatlan.

S. S. UMATILLA.

The S. S. Umatilla, which we illustrate this issue as our frontispiece is an excellent representation of a vessel being almost worthless for what she was designed and being very valuable and profitable for an entirely different and wholly dissimilar business.

This ship together with the "Wallawalla" was designed for a collier to distribute coal on the Pacific Coast, but both were displaced by the "San Mateo" for the coal business.

They were then converted into passenger ships by the addition of an awning deck formed by joining the poop, bridge and forecastle, and probably will never be excelled by any ships in fulfilling all the requirements of the passenger trade on the Pacific Coast for their term of usefulness, and at the period over which that term extended. Only last winter the fine new ships "President" and "Governor" were laid out while the Umatilla took the run between here and Seattle.

The "Umatilla" is an iron single-screw ship with two decks and an awning deck, of 3,070 tons gross, 2,005 tons under deck, 2,168 net register tons.

She was built in 1881 by John Roach & Sons, at Chester, Pa., for a collier and is 317 feet long, 40.6 feet beam, 22.5 feet depth, 30.3 feet to the awning deck. She used to put out about 1800 tons of coal which seems small when one takes into consideration that a collier of that size should put out about 4,000 tons.

Since conversion she carries 517 passengers and takes care of such freight as offers at the same time.

The hull is divided into six compartments with water bottom for ballast going up the coast.

The vessel is propelled by a compound engine with cylinders 32-in. and 74-in. diameter and 54-in. stroke which develop about 2,000 horsepower, steam being furnished by Scotch boilers.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

PILOT CHART OF THE SOUTH ATLANTIC OCEAN.

The first issue of a pilot chart of the South Atlantic ocean is ready for distribution at the Branch Hydrographic Office, Merchants' Exchange building, San Francisco.

The chart has been in demand for a number of years and is greatly appreciated by mariners. Full information and data regarding the best sailing routes, direction and force of the wind in each five-degree square, limits of the trade winds, variation of the compass, lists of new charts, etc., as are shown regularly upon the pilot charts of the North Atlantic and Pacific oceans. This chart will be issued quarterly. A similar chart of the South Pacific ocean is being prepared by the Hydrographic Office. Copies may be had upon application to J. T. McMillan, Branch Hydrographic Office, San Francisco, and all other branch hydrographic offices on the Pacific Coast.

NOTICE TO MARINERS.

The naval wireless stations on the Pacific Coast are Cordova, Sitka, Alaska; Navy yard, Bremerton, Tatoosh Island, North Head, Wash.; Cape Blanco, Table Bluff, Ore., and Mare Island, Port Arguello, Point Loma, Cal. There are also Oahu Island, Hawaii, Guam and Cavite.

PORT TOWNSEND, April 24.—Capt. Baughman of the S. S. Humboldt reports as follows:

April 19, 1909—Indian Rock buoy, Lynn canal, gone.

April 19, 1909—Battery point light, burning.

April 20, 1909—Potter rock buoy, Tongas narrows, replaced.

April 20, 1909—No. 7 buoy, Wrangell strait, replaced.

April 21, 1909—Holland island gas beacon, burning.

April 21, 1909—Watson rock gas beacon, burning.

April 21, 1909—Morning rock, gas beacon, burning.

TIDE TABLE TO WEEK ENDING SATURDAY, JULY 3.

Golden Gate Entrance to San Francisco Bay.

JUNE

Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
3rd quar E	Sat.	6	7 10	0 9	14 54	4 6	19 05	3 5		
	Sun.	7	0 20	5 7	7 56	0 8	15 15	4 5	20 07	3 5
	Mon.	8	1 10	5 4	8 45	0 5	16 35	4 8	21 15	3 4
	Tues.	9	2 15	5 1	9 40	0 2	17 20	5 0	22 28	3 2
	Wed.	10	3 44	4 6	10 32	0 3	18 04	5 2	23 42	2 6
Full P	Thur.	11	5 25	4 3	11 35	0 8	18 40	5 4		
	Fri.	12	6 50	1 0	6 55	4 2	12 30	1 3	19 18	5 0
	Sat.	13	1 42	1 2	8 10	4 4	13 24	1 7	19 56	5 9
	Sun.	14	2 32	0 4	9 20	4 5	14 12	2 1	20 45	5 1
	Mon.	15	3 24	0 2	10 24	4 6	15 04	2 4	21 14	6 4
New N	Tues.	16	4 14	0 8	11 24	4 5	15 51	2 8	21 54	6 4
	Wed.	17	5 00	1 2	12 20	4 6	16 40	3 2	22 34	6 3
	Thur.	18	5 48	1 3	13 15	4 5	17 28	3 4	23 15	6 5
	Fri.	19	6 34	1 3	14 08	4 6	18 18	3 4		
	Sat.	20	0 00	6 0	7 18	1 1	15 00	4 7	19 15	3 5
1st quar E	Sun.	21	0 45	5 6	8 02	0 7	15 48	4 8	20 12	3 5
	Mon.	22	1 34	5 2	8 44	0 2	16 32	4 9	21 20	3 5
	Tues.	23	2 28	4 6	9 25	0 3	17 10	5 1	22 30	3 3
	Wed.	24	3 40	4 1	10 10	0 7	17 47	5 2	23 38	2 9
	Thur.	25	5 00	3 7	10 58	1 2	18 22	5 4		
Full	Fri.	26	6 46	2 5	6 21	3 6	11 40	1 6	18 52	5 2
	Sat.	27	1 24	1 9	7 44	3 6	12 22	1 9	19 18	5 4
	Sun.	28	1 53	1 1	8 40	3 8	13 07	2 3	19 45	5 6
	Mon.	29	2 35	0 7	9 36	3 9	13 56	2 6	20 14	5 8
	Tues.	30	3 18	0 1	10 30	4 2	14 45	2 8	20 47	5 9
Full	Wed.	1	4 00	0 5	11 22	4 3	15 25	3 2	21 30	6 1
	Thur.	2	4 42	0 9	12 10	4 5	16 14	3 2	22 12	6 2
Full	Fri.	3	5 26	1 2	12 55	4 6	17 05	3 2	22 55	6 2

Time used, Pacific Standard, 120th Meridian W.

Oh—midnight 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

AVERAGE CONDITIONS OF WIND AND WEATHER OVER THE NORTH PACIFIC OCEAN DURING JUNE.

THE AREA OF HIGH BAROMETER—THE NE. TRADES.—The main body of the ocean is covered by an area of high barometer, the ridge of high pressure extending east and west between the 30th and 40th parallels, and reaching a maximum (30.25 inches) between 140°-150° W. The winds of the eastern half of the ocean circulate around this area in the same direction as the motion of the hands of a watch, NW'ly and N'ly winds prevailing between the maximum and the coast, NE'ly and E'ly winds the NE. trades along the southern slope, SE'ly, S'ly and SW'ly winds to the west of the maximum, SW'ly and W'ly winds along the northern slope to the eastward of 180°. The probable limits of the trades are shown upon the chart. In direction they will vary from North along the meridian of 125° W. to East in mid-ocean. From 140° W. to 140° E. the freshest and the steadiest trades will be found between 10°-15° N., the average frequency and the average strength on the Beaufort scale of the E'ly (N. SSE.) winds for the several belts being as follows:

Longitude.	Latitude.	N. SSE.	Average force.
° °	° °	Per cent	
140 W.—140 E.	5—10 N.	87	3.4
	10—15 N.	98	1.3
	15—20 N.	93	3.3
	20—25 N.	89	3.3

In Honolulu the average prevalence of the trades during June is 26 days. Calms and light variable airs will be frequent (20 per cent or more) throughout the region 0°-10° N., 130° E.-180°; also throughout a triangular area, the base of the triangle resting on the American coast and stretching from Cape San Lucas to the Gulf of Panama, the vertex being found in 10° N., 130° W.

WINDS ALONG THE AMERICAN COAST.—Along the American coast north of 45° the wind goes from SE. (with falling barometer), through West, to NW. (with rising barometer). Between the coast and 130° W., 80 per cent of all the winds that blow come from the semicircle included between these two points. Beyond 130° winds from North and East become more frequent. Gales occur but rarely and from SE. or NW. Between 40° and 45° N. NW winds prevail. Gales from NW, occasionally occur near the coast. Between 35° and 40° N., the prevailing direction is NW, shifting more to N'ly beyond 130°. NW'ly gales occur east of 130° W. and between 35°-45° N. about 3 per cent of the time. To the southward of 35° NW'ly winds prevail near the coast, N'ly to NE'ly winds beyond 125° W. The percentage of winds from

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	19	May 29	Channel getting broader.
Willapa Bay	27	Apr. 1	Depth at mean low water in channel to Raymond 15 feet.
Columbia River	*24	Feb. 16	
Nehalem River	9	Apr. 3	Channel 200 ft. south of buoy.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	13	Mar. 12	Channel not shifting.
Siuslaw River	4	May 1	Beacon on beach in line with south side of gulch leads over bar.
Umpqua River	12	May 1	Channel is in good condition.
Coos Bay	17	May 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	8	May 4	Channel shifted north close to north jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	9	May 19	Channel straight.
Humboldt Bay	18	May 1	15 feet in south channel at low water, north channel crooked and difficult.
San Pedro Bay	20	Apr. 15	No change in channel.
San Diego Bay	25	May 3	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel

*About.

each quadrant (i. e., the number of hours in each hundred during which the wind may be expected to blow from some point in that quadrant) for the several 5-degree squares is as follows:

Latitude.	Longitude.	N.-ENE.	E.-SSE.	S.-WSW.	W.-NNW.	Calms	Total.
° °	° °	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.
50—45 N.	120—125 W.	8	18	22	39	13	100
	125—130 W.	6	17	23	40	14	100
	130—135 W.	13	20	24	32	11	100
45—40 N.	120—125 W.	20	8	9	48	15	100
	125—130 W.	20	6	21	44	9	100
	130—135 W.	17	10	21	39	13	100
40—35 N.	120—125 W.	4	6	19	60	11	100
	125—130 W.	21	1	9	63	6	100
	130—135 W.	30	5	17	37	11	100
35—30 N.	115—120 W.	3	7	10	48	32	100
	120—125 W.	14	2	1	75	8	100
	125—130 W.	40	0	5	45	10	100

Continuing southward NW'ly winds may be expected between the coast and a line drawn from 30° N., 125° W., to 15° N., 110° W. Between 15° and 10° N., baffling winds will prevail, and south of 10° N., light S'ly to SW'ly winds, freshening as the line is approached.

AREA OF LOW BAROMETER.—THE PREVAILING WESTERLY WINDS.—A trough of low barometer (29.80 inches) extends East and West to the northward of the Aleutian Islands. Around this trough the circulation of the winds is cyclonic, or contrary to the motion of the hands of a watch. Over the eastern half of the ocean and north of 40° W'ly (S.-NNW.) winds thus predominate, increasing in frequency as higher latitudes are attained. Over the western half of the ocean they are most abundant between 30°-35° N. For June the relative frequency of E'ly (N.-SSE.) and W'ly (S.-NNW.) winds throughout the several belts is as follows:

Latitude.	140° E.—180°.			180°—140° W.		
	N.-SSE.	S.-NNW.	Calms.	N.-SSE.	S.-NNW.	Calms.
° °	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
25—30 N.	55	36	9	81	14	5
30—35 N.	43	53	4	61	31	8
35—40 N.	55	39	6	48	46	6
40—45 N.	53	38	9	41	53	6
45—50 N.	50	41	9	34	62	4
50—55 N.	35	52	13	33	59	8

SW. MONSOON.—The SW. monsoon attains its full development during the present month, covering the China sea as far northward as Formosa. It possesses neither the strength nor the steadiness of the winter monsoon. Along the coast of lower China it blows frequently from South to SE. During its prevalence the land and sea breezes are also more clearly defined than during the NE. monsoon, and vessels hugging the coast are thus enabled to make headway against it.

Along the western coast of the Philippine Archipelago during June and July light SW'ly breezes may be expected during the day, becoming SE'ly at sunset. Steady winds from any quarter throughout the entire day may be regarded as indicating the existence of a typhoon, the center of the disturbance bearing from two to four points to the left of the point toward which the wind is blowing. Frequent thunderstorms and abundant rain. For Manila the average climatological conditions during June are: Pressure, 29.77 inches; temperature, 82.4° F., rainfall, 9.9 inches. For July they are: Pressure, 29.75 inches; temperature, 81.0° F.; rainfall, 15.4 inches.

TYPHOONS.—Mariners in eastern Asiatic waters are reminded that the season for typhoons is at hand, 24 of these storms having occurred within the month of June, 45 within the month of July, during the period 1884-1897. Attention is called to the average tracks given (in red) upon the Pilot Chart, showing the average path followed by the storm center and the distance traversed in each twenty-four hours; also to the table giving the season and frequency of occurrence of each class of typhoons.

CYCLONIC AND ANTICYCLONIC CIRCULATIONS.—Temporary areas of alternately high and low barometer, with attendant anticyclonic and cyclonic wind circulations, will be found moving in a general ENE'ly direction across the ocean in temperate latitudes. In advance of the former the weather is dry (large difference between the wet and the dry bulb), the barometer rises, the thermometer falls, the clouds (cirrus, cirro-cumulus, alto-cumulus) tend to dissolve, and the general direction of the winds is polar or W'ly; in advance of the latter the weather is damp (small difference between the wet and dry bulb), the barometer falls, the thermometer rises, the clouds (cirro-stratus, alto-stratus, nimbus) tend to gather, and the general direction of the winds is equatorial or E'ly. The eastward passage of an anti-cyclone is marked by light slowly shifting winds and fair weather; of a cyclone, by rapidly shifting winds, gales, rain and foul weather.

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Latitude.	150° E.—180°.	180°—160° W.	160° W.—140° W.	140° W.—125° W.
° °	Per cent	Per cent	Per cent	Per cent
50—45 N.	49	32	23	14
45—40 N.	35	24	25	16
40—35 N.	11	18	15	18
35—30 N.	17	3	3	10

Elsewhere, rare.

GALES OF FORCE 8 AND OVER.—The frequency of gales in June rapidly decreases, being less than half that of May. The region of maximum frequency (3 to 5 per cent) is in latitude 40°-50° N., longitude 160°-175° E.

PROPOSALS.

Sealed bids will be received at the office of the U. S. A. Quartermaster, 322 Arcade Annex, Seattle, Wash., in triplicate, endorsed on cover, "Proposals for Quartermaster Steamer, Puget Sound," and addressed to Quartermaster, U. S. A., Seattle, Wash., for construction of one wooden steamer, oil burner, dimensions about 130 feet length, 24-foot beam, 8 feet draft, triple expansion engine, single screw. Guarantee of 25 per cent must accompany bid. Bids received up to June 14th, at 11 A. M. Particulars on application to Major W. S. Wood, Quartermaster.

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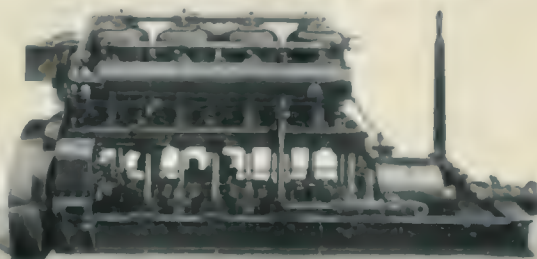
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PACIFIC MERCHANT MARINE



SATURDAY, JUNE 19, 1909

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NO. 12

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State Board of Harbor Commissioners

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Volume II

SATURDAY, JUNE 19, 1909

Number 12

SPEECH OF HON. CHARLES H. GROSVENOR

In the House of Representatives

(Continued from last issue)

What Is a Subsidy?

Mr. Chairman, we are spending in the United States enormous sums of money for subsidies. Yet, Mr. Chairman, the word "subsidy" shocks a great many of the American people. If you can only correctly call a thing a subsidy you have enlisted a clamor equal to General Grant's recollection of the sound of the coyotes in his first famous journey across the plains. What is a subsidy? A subsidy is well defined by the word "subsidize" in the dictionaries—"to furnish with a subsidy; to purchase assistance by the payment of a subsidy; to assist an individual or an undertaking with money; pecuniary aid, aid given in money; to specify; an aid or tax formerly granted by Parliament to the Crown to meet urgent or pressing necessities, levied on every subject of ability according to the value of his lands or goods."

The appropriation bills of Congress from year to year are crowded and, I might say, overwhelmed with subsidies. We expend more money per annum for the deepening and widening and straightening of the rivers and harbors of the United States than would carry the operations of this bill through to the end of its existence—ten years—and every dollar of that money is a subsidy to the commerce of the country.

No sooner does a foreign shipbuilder announce that the present draft of his largest ship is not met by corresponding depth of water in American harbors, and that he could make more money if the American Congress would excavate the American harbor a little deeper, so that the foreign ships could carry a little more cargo and earn a little more money, than the American Congress rushes its engineering force to ascertain and make a project for the deepening of the harbors of the country in order that foreign demand for deeper water and deeper draft of ships shall be met out of the pockets of the American people. That is a matter of pure subsidy, nothing else; it can be described by no other name; it meets the dictionary definition; it meets the common-sense definition; it meets every definition. Every dollar of money that is expended by the United States Government in deepening, widening and perfecting the harbors of our seacoast, every dollar that is expended in the magnificent improvement of our great chains of mighty lakes, every dollar that is spent in the deepening, straightening and widening of the great network of rivers that encompass our country—every dollar of it is a subsidy to aid the commerce of the American people.

What Subsidy Has Done.

When I first became a Member of Congress the freight upon a ton of iron ore from the upper Great Lakes to the harbors along the shore of Ohio was about \$2 a ton, and the vessels that were carrying ore were carrying about 2,500 tons for a cargo, and they could get into some of the harbors which had a depth of 8 or 9 feet of water and deliver their cargoes and go back to the source of supply. To-day 10,000 tons is the complement of one of these

magnificent ships, and about 75 cents a ton the cost of delivering the ore at the ports of Ashtabula, Cleveland and the other places of distribution down to the location of the furnaces. We have dug out and excavated these harbors to a depth of 19, 20 and 22 feet of water. Every dollar of it came out of the public Treasury of the United States, and every dollar of it was a subsidy to the commerce of this country.

We are spending \$44,000,000 annually as a subsidy to the railroad systems of the country in developing the internal commerce of the country by the transmission of the mails of the country; and we invest \$100,000,000 in the Navy annually for the promotion and protection and distribution of what? A phantom commerce! A phantom ocean trade!

We talk about the construction of a mighty navy, and I am not opposed to it; we talk about having a navy that can protect our commerce in all the countries of the world. Why, Mr. Chairman, we have no commerce in all the countries of the world. We are building a navy that in time of peace has no occupation but to fit itself for war and protect our commerce carried in the ships of other nations.

I do not care to go over these items of subsidy. The whole growth, the whole mighty progress of the nation has gone steadily forward to the tremendous proportions of to-day based upon subsidies that the people of the United States through the action of Congress have conferred upon the various instrumentalities of production and commerce. We are proud of our trade abroad, and it is magnificent. Its growth is realized at the Treasury Department every day of our lives. The month of March was greater than any other month of March in the history of our nation. The condition of the financial year from the 30th of June to that period was greater than any other like period in the history of our nation. The calendar year that ended on the last day of December last showed our commerce abroad was greater than in any other like period in our nation's history. But, Mr. Chairman, ninety one-hundredths of all the mighty commerce was carried in foreign ships, carried under foreign flags, and \$200,000,000 last year, and nearly \$200,000,000 the year before, were taken out of the pockets of the American people and paid over to the labor of the various countries of Europe, who have wisdom and sense enough to patronize the merchant marine.

Mr. Chairman, there has not been a keel laid for an ocean-going ship in a shipyard of the United States during the last twelve months, while millions of dollars of British money and German money and Japanese money have gone to the commercial shipyards of those countries to build gigantic vessels of trade to carry our commerce to such customers as those countries see fit to carry that commerce to, and we, bowing to the demands, are preparing our rivers and harbors for their accommodation.

The Example of Japan.

Mr. Chairman, we see a great deal about the Japanese nation, and sometimes we hear people wondering if the Japanese are not in some way to become aggressors against the American people, or whether they will not seize upon the Philippine Islands, whether they will not become aggressors by their immigration into our country.

Let me tell you, Mr. Chairman, where they began to be aggressors upon American commerce—the very day that the armistice was signed between the Russian Government and the Japanese Government. Every spare shipyard in Japan was transferred as if by magic from the building of war ships to the building of merchant ships, and to-day more ships for over-sea commerce are being constructed in Japan than anywhere in any nation of the earth except Great Britain.

We have bearing the American flag in the Pacific Ocean about nine or ten ships. They are carrying the passengers and the commerce, such as they can carry, from San Francisco and Seattle to the oriental countries—about one ship where there ought to be ten ships, about one man employed where there ought to be ten men employed, and all the balance of our trade that might become mighty and profitable is carried in foreign vessels to foreign markets in the hands of foreign traders. But that is not all. Information comes to us—and it will appear to Members of Congress who read the hearings before the Committee on Merchant Marine and Fisheries—that to-day offers of purchase have been made to the owners of the Pacific Mail Steamship Company for their five great ships, and those offers are very satisfactory—more than satisfactory—and this information is coupled with the further information that comes to us beyond a possible doubt of its reliability, that the Japanese Government, in consideration that that purchase shall be made by a Japanese corporation, has said that it will give to the owners of those ships most profitable and very elaborate subsidies. For what purpose? To carry the commerce of the United States, and to control the commerce of the United States, and carry it where they see fit to carry it, and bring their commerce into the United States of America.

And the same is true of the ships sailing from Seattle, as I am informed. We have no such definite information upon that question as we have upon the other, but it is entirely manifest that the aggressions of the Japanese Government against our Government are to be the aggression of domination upon the merchant marine of the country and the carrying of all the commerce and the control of all the commerce between foreign countries and our own.

San Francisco's Need of the Shipping Bill.

San Francisco has two lines of American steamers in the over-seas trade, crossing the Pacific Ocean. One is the Pacific Mail Line, of five steamers, to Japan, China and the Philippines. The other is the Oceanic Line to New Zealand and Australia.

These are, by all odds, the largest and most important steamship companies operating out of San Francisco. Their head offices are there. Their agents and employees are there. They pay the wages and salaries on sea and shore of a great many men, and the business which they conduct is worth many millions of dollars annually to San Francisco and to California.

The Oceanic Company is now receiving a small, insufficient subsidy, a very much smaller amount than European lines from Europe and Canada to Australia are paid for inferior service. The Pacific Mail Company receives only from \$60,000 to \$80,000 a year, at the rate of so much per pound, for carrying the United States mails to the Orient. A competing parallel Japanese line of only three steamers, employing only Japanese and not one American, receives a subsidy of from \$500,000 to \$600,000 from the Japanese Government.

Neither the Oceanic Company nor the Pacific Mail Company has for years paid a dividend. The Oceanic

Company, in fact, has been losing several hundred thousand dollars annually. The shipping bill of the Merchant Marine Commission provides an increased subvention of \$217,000 a year for our Australian mail service, which would bring the Oceanic Company approximately on even terms with its foreign competitors. This bill also provides \$600,000 a year for an improved mail service to Japan, China and the Philippines, which would enable the Pacific Mail Company to build more American ships and run more frequently across the Pacific to Manila.

The city of San Francisco has never had much manufacturing. It has lived by the sea and from the sea. The foundation of its prosperity has been the fact that it was our great national gateway for our Pacific commerce. Congress has already granted several million dollars for feeding the hungry and clothing the naked refugees from San Francisco's great disaster. But the surest, most effective, and most permanent thing that Congress can do to rebuild the ruined city and revive its stricken trade is to pass this shipping bill of the Merchant Marine Commission, with its provisions for encouraging not only American steamship lines to the Orient and Australia, but a third line from San Francisco down the coast to Mexico, Central America and the Isthmus of Panama.

This ocean commerce is the very lifeblood of San Francisco. The city cannot exist without it. Nothing would so hearten and strengthen the business men and the wage-earners of San Francisco as the news from Washington that the Congress of the United States had stepped in and assured to them the continuance of their great lines of ocean steamers.

Unless the bill is passed and passed at once, it is certain that these American steamship lines, on which the prosperity, even the life, of San Francisco largely depends, will not be continued. They cannot be run indefinitely against the subsidized shipping of Europe and Japan. Even before this disaster it was known in San Francisco, and it has become known in Washington, that the fate of these American steamship companies hung absolutely on the passage of the shipping bill. For there are nations in Europe—there is even a nation in Asia—which know what we Americans seem to have forgotten—that trade follows the flag, and that the people who control the ships are bound ultimately to control the commerce of the world.

Japan subsidizes all her ocean ships. She subsidizes her shipyards. Her merchant tonnage has grown more rapidly of late years than that of any other nation in the world. Thanks to her subsidies, creating a great naval reserve, she had the ships and the sailors to whip Russia. Japan's statesmen know well enough that our American steamship lines cannot survive without dividends, and her merchants, with generous subsidies guaranteed, are endeavoring to buy both of these American Pacific steamship companies. The Congress of the United States has been given ample warning that if the shipping bill is not immediately passed by the House of Representatives this Japanese effort will succeed, and the Stars and Stripes will be hauled down from the masthead of the two oldest American steamship lines crossing the Pacific Ocean.

Steel Makers Could Establish New Industry at Home.

There are probably a half dozen steel manufacturing corporations in the United States whose aggregate capital exceeds two billions of dollars, whose gross earnings probably approximate three-quarters of a billion of dollars annually, and whose net earnings probably now exceed two hundred millions of dollars annually. The value

of our exports of iron and steel, and manufactures thereof, not including ore, during the fiscal year which ended on June 30, 1906, was in excess of \$160,000,000.

THE PANAMA CANAL.

The reservoir for the new water supply at Gatun will be 73 feet above mean sea level, will be fed by a perennial creek called the Quebrada los Guacas. The maximum flow of this stream on a single day in the rainy season was 20,000,000 gallons. On April 15, 1909, at the close of the dry period, a minimum flow of 233,280 gallons was recorded. The capacity of the basin will be 611,952,000 gallons, making it the second largest reservoir in the Zone, and this may be increased by elevating the dam. The maximum daily quantity of water which will be re-

was maintained until 1904 as a general store in Colon. Since then it has been expanded in order to keep pace with the increase in population, until it has become the main source of food and clothing supply for 40,000 people. The commissary has storehouses, a bakery, a laundry, a cold storage and ice plant, and a general store in Cristobal and Colon, besides stores in twelve other villages. Cold storage supplies and ice are delivered in the Zone villages each morning by special train. Only Isthmian Canal Commission and Panama Railroad employees are allowed to make purchases at the commissary, and to insure this no cash sales are made to residents of the Isthmus, all purchases being made with coupons issued by the Commission and charged against the employee's salary account. The business transacted by the commissary for



MACHINE SHOPS ON THE CANAL

The French had seven such shops, the Americans have eighteen

quired at Gatun during the next five years for all purposes has been estimated at 2,000,000 gallons, and the reservoir will store enough water to last 200 days.

The Gatun reservoir will be the fifth in the Canal Zone fed by streams. The list is as follows:

Brazos Brook, near Mt. Hope, 641,000,000, drainage area 640 acres, lake area 120 acres.

Gatun, near Gatun, 611,852,000, drainage area 676 acres, lake area 95 acres.

Rio Grande, Rio Grande, 496,670,000, drainage area 2,015 acres, lake area 65 acres.

Camacho, Camacho, 295,867,000, drainage area 592 acres, lake area 38 acres.

Carabali, near Gergona, 80,000,000, drainage area 1,552 acres, lake area 20.5 acres.

By nationalities, the force at work in the Canal Zone on January 31, 1909, included 4,295 Americans, 4,913 Europeans and 15,670 West Indian negroes. The skilled labor, technical and administrative forces, are recruited in the United States, and, although the number of men who left the service each year up to 1908 was as great as the number actually at work, the supply has always been adequate.

The Panama Railroad Commissary was established many years before American occupation of the Zone, and

the fiscal year ending June 30, 1908, amounted to \$3,216,715.05.

There are eighteen hotels in the Canal Zone, at which meals are served at 30 cents each to employees, and at Hotel Tivoli in Ancon meals are served to employees at a reduced rate, and to transients at the rates charged by high class hotels in the United States. In the month of March, 1909, the receipts at the eighteen 30-cent hotels amounted to \$52,365.89, and 171,503 meals were served.

At the messes for European laborers the meals are served at the rate of forty cents a day for three meals. The food is placed on tables and the men sit down to it on benches. Twenty-one of these messes are maintained—one for each European labor camp. The meals served in March numbered 290,190, and the cost of maintaining the messes was \$36,084.05, a trifle less than the income.

In the mess kitchens for negroes food is cooked and is served in dishes to the men, to be eaten wherever they wish. The meals served to negro laborers in March at the twenty-four kitchens maintained for that purpose numbered 284,724, and cost \$25,196.17. The meals at the kitchens cost 30 cents a day for three meals.

The Commission truck gardens at Cowzal. Pedro Miguel and Empire contend against similar conditions as vegetable gardens do in the States, climate, excessive

moisture, insects and dry seasons being mainly the causes of loss.

The principal obstacles encountered in clearing the ground in the channel section of the Pacific Division, preparatory to blasting for subaqueous excavation, is the daily submerging of a large part of the area by the tides. On certain days when the tides are higher than usual, the ground is almost completely covered, in some places to a considerable depth. Quite often the men are compelled to work up to their waists in water, and occasionally one will fall in a hole and be obliged to swim out. The men dislike to work under these conditions, and it is with difficulty that an adequate force is maintained. Blasting operations in this section have been somewhat retarded by lack of casing for the drill holes. The work is now progressing, however, and the brush clearing gang is working a mile or so south of the Miraflores lock site.

CULEBRA, C. Z., April 30, 1909.

Circular No. 245:

By direction of the President, it is ordered that the Pacific entrance of the canal, heretofore known as "La Boca," shall hereafter be known as "Balboa," in honor of the discoverer of the Pacific ocean.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

A shipment of 1,300 gross tons of open-hearth steel rails, manufactured by the Bethlehem Steel Company, arrived at Cristobal on May 1 for use on the Panama railroad. 70-pound rails will be laid on the permanent line between Colon and Gatun, and between Corozal and Panama. The old 70-pound rails will be used in construction work on the relocated line. 90-pound rails will be used on the sharp curves between Las Cascadas and Tabernilla; owing to heavy traffic on this section, 90-pound Bessemer rail has been worn out in from ten to twelve months. The uniformly high temperature of the climate on the Isthmus is especially favorable for the use of the high-carbon rail, which is expected to give excellent service on account of its hardness.

Dr. Manuel Amader Guerrero passed away at his home in Panama City on May 2. Dr. Amader was a native of Cartagena, Colombia, and had resided on the Isthmus for 60 years, being 77 years of age at the time of death. He was the unanimous choice of the National Assembly as the first president of the new republic, his term expiring September 30, 1908.

The following message was received from President Taft:
WASHINGTON, D. C., May 2, 1909.

Mrs. Amader Guerrero, Panama:

Mrs. Taft and I extend to you our heartfelt sympathy in your great sorrow and deeply regret the passing away of a great friend.

WM. H. TAFT.

The chairman of the Isthmian Canal Commission issued the following order:

CULEBRA, C. Z., May 3, 1909.

Circular No. 286:

As a mark of respect to the Republic of Panama, it is ordered by direction of the Secretary of War that all work be suspended for five minutes on Monday, May 3, at 4 o'clock P. M., the hour fixed for the funeral of the late Ex-President Amador.

GEO. W. GOETHALS,
Chairman and Chief Engineer.

In his letter of condolence transmitted to the Panama Government, the Secretary of War of the United States, who was visiting the Isthmus, announced that in honor of the memory of Ex-President Amador the new fortifications that are to guard the Pacific entrance to the canal would be named Fort Amador.

Over a ton and a quarter of quinine was issued by the

Department of Sanitation in the calendar year 1908. Quinine is dispensed free to all those who apply for it whether an employee of the commission or not. The drug costs about \$3.15 per pound.

The total canal excavations to April 30, 1909, is as follows:

By French companies.....	81,548,000 cu. yds.
By Ameriens.....a.....	73,124,849 " "

THE RUSSIAN government will build four new battle-ships costing in the aggregate \$1,700,000. Keels of the first two will be laid June 18 and July 3.

THE PENALTIES attached to the violation of the coastwise shipping laws which prohibit foreign steamship companies carrying passengers between American ports, will be strictly enforced by the United States officials.

THE STATE railroad commissioners of California now have jurisdiction over the bay and river transportation companies by water, which control reverts to them through the passage of a new law to that effect. The commission will fix rates, force interior transportation companies to publish rates and look into the business of such companies.

THE NAMES of the steamers Tremont and Shawmut, which recently arrived in New York from San Francisco, will be changed before they enter the service of the government. The Shawmut will be named the Ancon and the Tremont will be called the Cristobal. The steamers were purchased by the Isthmian Canal Commission to carry provisions and supplies to Panama.

THE SECRETARY of Commerce and Labor has indorsed the amendment to the rules and regulations of the steamboat inspection service requiring all steam vessels of any size to be equipped with a warning bell operated from the bridge by which means the crew below can be called in case of danger.

The regulation reads as follows: "All steam vessels of over 100 gross tons having sleeping accommodations below the main deck for passengers or crew shall have such quarters equipped with a bell (electric or otherwise), to be operated from the bridge or pilot house of such steamers in case of disaster, such as fire, collision or foundering."

THE GENERAL board of customs appraisers have decided that anthracite coal, whether it contains 92 per cent of fixed carbon or less, is entitled to free entry into the United States. Under the existing tariff regulations coal commercially known as anthracite is nondutiable.

The decision was rendered in the case of Frank Waterhouse & Co., who protested against a duty of 67 cents per ton levied on a cargo of Welsh coal imported to Seattle in March, 1908, via the French bark General de Negrier.

The decision, signed by Byron S. Waite, H. M. Somerville and Eugene G. Hay, of the board of general appraisers, is as follows in full, on protest 295,034:

"The importation in this case consists of coal imported from Swansea, Wales. It was assessed for duty by the collector at 67 cents per ton of twenty-five bushels, under paragraph 415 of the present tariff act of 1897. The importers claim it is free of duty under paragraph 523 of said act, and section 2 of the act of January 15, 1903. Said paragraph 523 places on the free list coal, 'anthracite, not specially provided for' in said act. The act of congress approved January 15, 1903 (32 Stat. 773, T. D. 24,164), entitled 'An act to provide rebate of duties on coal, and for other purposes,' reads as follows:

" 'Be it enacted by the senate and house of representatives of the United States of America in congress assembled, That the secretary of the treasury be, and he is hereby authorized and required to make full rebate of duties imposed by law on all coal of every form and description imported into the United States from foreign countries for

the period of one year from and after the passage of this act.

"Sec. 2. That the provisions of paragraph 415 of the tariff act of July 24, 1897, shall not hereafter be construed to authorize the imposition of any duty upon anthracite coal."

WASHINGTON, D. C., May 22.—During the month ending April 30, 1909, there were built in the United States and officially numbered 114 sail and steam vessels of 42,091 gross tons. The division of these vessels, according to the monthly report of the bureau of navigation, is as follows: To the Atlantic and Gulf, 7 sail and 39 steam vessels of a gross tonnage of 5,618; Pacific, 3 sail and 27 steam vessels of a gross tonnage of 571; the Great Lakes, 19 steam vessels of 35,385 gross tons. Total detailed figures show there was constructed of wood 11 sailing vessels and 90 steam vessels; of steel there were built 13 vessels.

An arrangement has been made between the Osaka Shosen Kaisha, the new Japanese steamship company that will operate in conjunction with the Chicago, Milwaukee and St. Paul railroad and the established line, the Nippon Yusen Kaisha, whereby the possibility of a rate war is avoided. A schedule is in course of preparation which will give a weekly service on both ends of the line, the steamers of the two lines alternating in their dates.

WASHINGTON, June 1.—According to a decision today by the supreme court of the United States in the cases of the Oceanic Steam Navigation Company and the International Mercantile Marine Company, both against Collector Stranahan of the port of New York, the provision of the immigration law of July, 1903, authorizing collectors of customs to impose and collect fines against steamship companies for bringing in legally prohibited immigrants is constitutional.

The rapid advance and improvement in sanitary methods and appliances has progressed with all other sciences, and applies to the land and sea. To fully meet the demands of their increasing business and to combine domestic and marine plumbing, Messrs. Anderson & Bailey have moved to more commodious quarters, and are now located at No. 240 Steuart street. The movement of this enterprising firm shows the public recognition of their ability and strict business methods.

LOCAL NOTES

THROUGH THE prompt action of Captain Friele, passengers, on the steamer China, were saved from an unpleasant if not fatal accident while just off this port. One of the ammonia tanks in the ice plant burst filling the cabins and saloon, in which a number of children were playing, with deadly fumes. Under the direction of Captain Friele a thorough search of the steamer's apartments was made and portholes were opened to the outside air.

Aside from a bad scare and a few minor bruises the passengers were unharmed.

THE AUSTRALIAN Mail Line at present operating chartered steamers on the run between San Francisco and Sydney, Australia, via Auckland, New Zealand, have placed an order, through Andrew Weir & Co., their London representative, for three new steamers of about 5000 tons burden.

The new steamers will not be built for speed or passenger service but for the large freight demand which the Australian line has been unable to satisfy since the loss of the Aeon which was wrecked in the South Seas several months ago.

The government of New Zealand brought heavy pressure to bear in order to persuade the Australian Mail Line to build fast steamers in order to resume the mail service given by the Oceanic Steamship Company up until a few years ago.

Commercial men of Auckland are co-operating with Sydney merchants in an effort to secure a British or American Company to supply, with the help of a liberal subsidy, the fast steamers required.

THE APPLICATION of Theodore A. Bell of Napa for a ferry franchise to operate a ferry between Vallejo and Mare Island navy yard, in competition with the Vallejo ferry company, was denied by the supervisors of Solano county.

The Vallejo company paid \$10,000 for a 20-year franchise 13 years ago, and, having the monopoly of the business, has made over half a million dollars.

THE FIRST vessel, clearing from a foreign port, to dock at Berkeley was the schooner S. N. Castle, which epoch occurred June 2.

The S. N. Castle brought 500 tons of copra consigned to an oil company of Berkeley and by request of the Berkeley Chamber of Commerce the vessel was permitted to enter at Berkeley as a sub-port of San Francisco.

The community of Berkeley is preparing to receive the extensive foreign ocean trade of which the S. N. Castle is but a forerunner and a bond issue is being agitated for the purpose of improving the municipal dock and the building of a fireboat to protect shipping and waterfront generally.

BECAUSE OF the condition of the boilers of the old gunboat Vicksburg the vessel did not depart on her trip around the Horn as ordered by the department about a month ago. After an examination of the vessel, Commander A. Halstead refused to take the boat out until temporary repairs were made. The little gunboat sailed for the East coast June 15th. On her journey around the Horn the boat will make fifteen stops.

PETER CYCMAL, formerly a water tender on the steamer Buckman, has filed two suits in Admiralty in the United States District Court to recover \$2,500 for abusive treatment. One of the suits amounting to \$500 is against the steamer for breach of contract for good treatment made between libellant and the owners. The other action for \$2,000 is directed against Captain B. Woods and First Mate John Wilson and alleges that on May 27, 1909, last, Captain Woods knocked libellant down with his fist and kicked him and upon the captain tiring of this recreation, Mate Wilson did a little knocking and kicking.

THE U. S. revenue cutter Bear started June 5, for her annual cruise among the rookeries dispensing justice, seeing that no poaching is carried on and looking after the general interests of the United States.

A SUIT in Admiralty in the United States district court has been filed against the steamer Resolute by the Keystone Boiler Works. The suit is to recover \$2,325, the balance due on a bill for \$3,325 for furnishing material and labor in making repairs on the steamer in July, 1908.

WHILE OPERATING off the end of Greenwich street wharf a State dredger raised the gasoline launch Scout which was sunk in a collision with the ferryboat Tamalpais seven years ago. The engineer of the launch was drowned at the time and his body was never recovered.

TOURIST TRAFFIC especially on the Pacific Mail S. S. Company's liners, is exceptionally heavy and there is scarcely a berth available on the liners scheduled to sail as late as October and November.

THE TRANSPORT Logan reported by wireless that she sighted an overturned vessel about fifty feet long in latitude 45.28 north, longitude 129.22 west.

THE CALIFORNIA State Naval Militia training ship Alert will carry 150 members of the organization on a two weeks' cruise to Santa Cruz and San Diego. The steamer will sail for Santa Cruz July 3rd reaching there Independence day.

A REPORT is current that agents of the Southern Pacific Company are negotiating with the California Navigation

and Improvement Company for the purchase of the entire business of that company. This rumor is partly confirmed by the action of the Southern Pacific Company in building the modern steamer Navajo for use on the Sacramento river. The new boat will be in commission this summer when work will be commenced on another steamer of the same speed and dimensions.

THE LUMBER schooner Confianza, which has been laid up in the estuary for several months, will be fitted out for a whaling cruise in the Arctic ocean. The schooner's hull will be sheathed with hardwood to withstand the ice. Captain McKenna, an experienced whaler, will command the Confianza.

THE NEW Pacific Mail steamer Pennsylvania sailed June 7th with one of the heaviest cargoes in years to the south. Her cargo will amount to 4,500 tons.

THE AMERICAN ships J. B. Thomas and Sea King will depart in about two weeks for New York, where upon arrival they will be dismantled and converted into barges.

THE SEAWALL commission at its last meeting awarded the contracts for the construction of two new sections of seawall. The contract for the construction of section 9, which will be 1,000 feet long, was awarded to the Associated Construction Company, whose bid of \$261,000 was the lowest. The American Construction Company will build section 8, of which there will be 300 feet, at a cost to the state of \$80,000.

THE BOARD of city trustees of Vallejo has been requested by Captain L. Young of the Mare Island navy yard, to enforce the navigation laws which affect the anchorage of vessels in the Mare Island channel.

LOADED WITH four carloads of cement a barge belonging to the San Francisco Dredge Company sank while alongside Long wharf, June 14. The barge was raised shortly after and towed across the bay for repairs.

ALTHOUGH A thorough search was made over all parts of the steamer Manchuria for smuggled Chinese, none would have been found but for a harmless accident. While searching the vessel one of the heavy inspectors crashed through a light partition and dropped upon nine of the offenders. The Chinese were hiding until the vessel should go to Hunters Point to dock when an effort would be made to escape.

LLOYD'S HAS paid the insurance on the wrecked Pacific Mail liner Indiana, the amount being \$150,000, and the company has abandoned her to the underwriters who have arranged with the Robert Dollar Company to dismantle and salvage her.

A CONSISTENT rumor has started that the Monticello Steamship Company will shortly let a contract to the Union Iron Works for the construction of an up-to-date, commodious steamer to be used in the increased river traffic which is bound to come with the opening of the Vallejo and Napa Valley Railroad.

The new steamer will be 228 feet long and 28 feet beam; hull constructed of steel rated to make nineteen knots an hour and will cost close to \$300,000.

It has also been stated that the Monticello Steamship Company has been sold to the Southern Pacific Railroad Company, the latter company having recently acquired several river and bay steamboat lines.

AN ACT empowers the state railroad commission to compel transportation companies to register all rates between points in which they operate.

CONSUL HENRY Lund of Norway has presented the sloop Gjoa, which carried Captain Amundsen through the Northwest Passage on December 5, 1905, to the city of San Francisco.

THE OIL tank steamer Asuncion arrived June 16, with 1,500,000 barrels of oil recovered from the wreck of the Standard oil barge No. 91.

NORTHERN COAST NOTES

Seattle.

THE TUG Sea Lion, the property of the Puget Sound Tugboat Company of Seattle, was sunk four miles east of Race Rock, in the straits of Juan de Fuca, by the schooner Oceana Vance ramming her. The Sea Lion was at the time towing the barge Changer in a dense fog. The loss is estimated at \$50,000.

THE KIRKLAND Development Company has purchased from the Kirkland Land and Improvement Company, 1,500 acres of land on the eastern shore of Lake Washington for a consideration of \$350,000.

THE GREAT Northern liner Minnesota arrived on schedule June 5, despite the breaking of the port tail shaft. The accident occurred when 1,700 miles from Seattle but progress at the rate of 230 miles a day was made with the liner's starboard screw.

THE REPORT of the harbormaster for May shows ninety-five steamships and four sailing ships arriving with a total tonnage of 166,341; ninety-one steamships and two sailing ships departing with a total tonnage of 156,053. The passenger arrivals were: Coastwise, 4,716; Alaska, 1,712; British Columbia, 10,840; foreign, 207; local, 101,870; total, 119,365. The departures were: Coastwise, 1,860; Southeastern Alaska, 3,772; Bering Sea ports, 240; British Columbia, 7,728; foreign, 392; local, 97,780; total, 111,772.

The exports to the Orient amounted to \$430,187; to the Philippines, \$51,807; to British Columbia, \$190,811; to South America, \$16,498; to England, \$38,068; to Siberia, \$7,060; making the total foreign exports \$735,431. The imports from the Orient were \$1,391,534, of which raw silk amounted to \$1,016,100. The trans-shipped imports from the Orient were \$260,477; from British Columbia, \$104,527, and from England, \$13,880, making the total foreign imports \$1,770,418.

THE INTERSTATE Commerce Commission has been called upon by the Humboldt Steamship Company to decide whether it has jurisdiction over the affairs of an international railroad. The steamship company has instituted proceedings before the commission against the White Pass and Yukon Railroad to compel the latter to recognize the right of the former concern to sell through tickets and issue through bills of lading via the railroad to interior America and British Yukon districts. The Canadian Pacific, Pacific Coast and Alaska Pacific Steamship companies operating on the same run as the Humboldt, viz., the Lane Canal route, all sell through tickets and bills of lading, and the latter company contends that the Yukon railroad is acting in restraint of trade by denying them this privilege.

The White Pass and Yukon railroad is 111 miles in length, extending from Skagway, on the American Lynn Canal to White Pass in British Canada. The decision will be watched very closely by all transportation men.

ATTEMPTS TO raise the tug Sea Lion, which was sunk by the schooner Oceana Vance June 11, in the straits of Fuca, were abandoned.

The United States inspectors have summoned witnesses in the case of the sinking of the Sea Lion by the Oceana Vance and the responsibility will be placed in a few days.

THE JAPANESE training squadron, consisting of the cruisers Asô and Soya, which have been on an extended visit to the Pacific Coast, sailed June 13 for home, via Honolulu.

THE GASOLINE steamer Anvil arrived in Seattle from San Francisco to enter the excursion business on Puget sound. The vessel is owned by John J. Seson Company and was originally built for the trade between Nome, St. Michael, Golovin bay and Kotzebue sound; later, she was

in operation on the run between Los Angeles and San Diego. The Anvil has a carrying capacity of 900 passengers.

THE PUGET Sound navy yard is now busy with the repairs on the cruisers of the first squadron of the Pacific fleet. The repairs will take practically all summer to complete.

THE STEAMSHIP Albion ran down a scow off Duwarnish Head and was forced to beach at Luna Park, as she stove a large hole in her bow.

THE CUSTOMS department has fined the steamboat Aquilo, of the Anderson Steamboat Company on Lake Washington, \$500 for violating the passenger capacity laws. The company has forwarded a protest to Washington, D. C., for a final decision.

THE STEAMER Princess Victoria holds the record for fast time between Seattle and Victoria, her time being three hours and fourteen minutes. The former time was three minutes less, this record also being held by the Princess Victoria.

IT WAS necessary to place the Steamer Minnesota on the government drydock at Bremerton navy yard in order to replace her port main tail shaft, which was broken during the last trip from the Orient.

THE FRENCH bark Turgot, which sailed from Hull on May 23 for Seattle, is reported to be a total loss by the officers and crew, who were saved. The Turgot had a cargo of general freight consigned to Balfour, Guthrie & Co. She was built in 1902 and her principal dimensions were: Length 276 feet, beam forty feet, depth twenty-two feet. The Turgot had been chartered to load new crop grain from Portland to the United Kingdom.

THE BRITISH steamer Aymeric of the Weir fleet will begin loading this week for the Orient, taking flour, lumber and general cargo. She is scheduled to shift to Seattle June 23 to take additional freight and after six days at that port will proceed to Vancouver, B. C., where she will take on the remainder of her Puget Sound cargo, steaming for the Orient July 2.

At the local offices of Waterhouse & Co. the weekly bulletin showing the latest reported position of the steamers in the Waterhouse-Weir fleet was received.

The British steamer Clan Macinnes is at the Fraser river mills loading lumber for Australia. She will soon complete the shipment and steam for San Francisco, from which port she leaves for New Zealand and Australian ports July 25 in the Australian Mail line. The British steamer Inverlay recently took lumber from the Fraser river mills and is to complete her cargo at Eureka before proceeding to San Francisco, from which port she is expected to steam June 11.

The British steamer Croydon arrived at Singapore June 1. The British steamer Century left San Francisco for New Zealand and Australia May 12. The British steamer Tymeric, which is reported from Guayaquil, will take the July steaming in the Australian Mail line, and the British steamer Yeddo, well known at this port, will take the August steaming in the same service.

In the company's Oriental fleet from the Sound the British steamer Suveric left Hongkong for Moji June 3, and on the same day the Kumeric, her sister ship, left Victoria for Yokohama and Manila with cargo from Tacoma, Seattle and British Columbia ports. The British steamer Gymeric arrived at Yokohama June 5.

The British bark Hawthornbank, which discharged creosote at Eagle Harbor, has shifted to Chemainus, B. C., to load lumber for Iquique.

Portland.

THE STEAMER Northland will be operated on the Seattle-Portland run in the passenger service as an experiment.

If the venture proves successful the steamer will be kept on the route permanently.

A LOG raft containing 5,000,000 feet of lumber will be towed from Astoria to San Francisco by a tug belonging to the Hammond Lumber Company. The raft is the first of the season and several more are being prepared for the trip.

THE ANNUAL survey of the Columbia river by the United States engineers has commenced, and it will probably take two weeks to complete the work. It is expected that a minimum depth of 28.8 feet will be found at mean low tide. Captain G. Jensen of the steamer George W. Elder has furnished the branch hydrographic office with a very complete report of a series of soundings taken during the month of May. According to the report lowest low water occurred May 28th and was 25.1 feet, which reads according to the government figuring 28.8 feet. The government survey of last year showed 26 feet at dead low water.

HARRY YOUNG and A. D. Chase have purchased the hull of the old steamer Jessie Harkins from Captain Hosford and will equip the craft for service on the Willamette and Columbia rivers. The boat will be supplied with boiler and engines, and when ready for commission will be christened Butterfly. It is the intention of the new owners to operate her on a short run out of Portland. The craft is now at the Supple yards, and it is expected that she will be ready within six weeks.

NEGOTIATIONS FOR the charter of the tugs Tatoosh and Holyoke from the Puget Sound Tugboat Company, are under way by the Port of Portland. The tugboat company have advanced a proposition of leasing the tugs which will probably be accepted by the Port. The Tatoosh and Holyoke will be used in the pilot service when the Port takes it over the 1st of July. The towboat Oklahoma has been retained for the towing of the river and the Port is considering the chartering or building of another boat to operate in conjunction with it.

THE ASSOCIATED Oil Company has chartered the tank steamer Catania to replace the wrecked schooner Rhoderick Dhu. The steamer will be placed on the run between Portland and San Francisco.

THE CROWN Columbia Pulp and Paper Company of Portland have purchased a barge owned by the Spokane, Portland and Seattle Railroad Company, and used at the bridge built across the Columbia river at Vancouver.

BECAUSE OF high water the work of building the government canal around the obstructions at Celilo has been discontinued and operations will not be commenced again until August.

THE BRITISH bark Gulf Stream arrived at Portland from Antwerp June 1st, completing a voyage lasting the greater part of a year. The vessel left Antwerp July 18, 1908 with a cargo of cement.

Victoria.

THE BRITISH bark British Yeoman has been registered at the port of Victoria under the ownership of R. P. Rethet & Co. She was formerly the Chilean bark Stefano Razeto.

THE DOMINION and United States governments have effected a partial settlement of the sealing question, and pelagic sealing will likely be stopped next season as far as these two countries are concerned. Russia and Japan are also forming an agreement for the better protection of seals and it is probable the four nations interested will form a compact regarding pelagic sealing. Japanese sealers, not being bound by their government to any specific period or manner of hunting seals, as American and Canadian hunters are, engage in the occupation at all seasons.

S. A. SPENCER has purchased the yacht Jubilee and is fitting her with an engine. Upon completion of necessary

repairs the yacht will be taken to Alert bay to be used in carrying timber cruises and miners along the northern coast.

THE COMPANY operating the steamers Lonsdale and Georgia on the passenger and freight service between Canada and Mexico will replace the two steamers by new vessels of greater capacity in both freight and passenger accommodations and of greater speed.

A CORPORATION of Chinese merchants has arranged to take the steamer Georgia and will probably take the Lonsdale also.

AN ITALIAN company, the Lloyd Generale Italiano, is about to establish a round the world service connecting Bombay and Yokohama via ports of the Orient and thence across the Pacific to the coast.

Tacoma.

THE STEAMER Tacoma Maru of the Osaka Shosen Kaisha will sail from Hongkong July 3rd, and will proceed via ports to Tacoma, that being the American port of entry and clearance. The Seattle Maru now in the course of construction will not be ready to sail as scheduled and a British steamer has been chartered to take its place.

A CAR ferry built by Hall Brothers at the Eagle Harbor shipyards, for the Chicago, Milwaukee and Puget Sound Railroad, has been launched and will be towed immediately to Tacoma. The ferry will be used in transporting cars to and from the railroad company's Puyallup river terminals and the north water front mills.

LUMBER SHIPMENTS from Tacoma by water during May made a better showing than was expected, considering the dullness which has prevailed in the cargo market. Figures from the books of the harbor master give the total shipments at over 10,800,000 feet. Of this amount more than 6,000,000 feet went to coastwise ports. June opens with six lumber vessels in port loading for coastwise and foreign ports and the Marlborough Hill, to leave Thursday or Friday for the west coast. The schooners Endeavor and Columbia are loading at the Tacoma mill, the ship Joseph B. Thomas at the Puget Sound dock, the schooner J. W. Clise at the Defiance mill, and the steamer J. Marhoffer at the Nelson-Johansen mill.

Astoria.

THE SAILING dates of the steamers George W. Elder and Roanoke from Portland to San Pedro and way ports are being changed from Thursday to Tuesday nights.

THE STEAMSHIP Arabia, which will be turned over to the Hamburg-American line on her arrival at Hongkong, will sail with a lumber cargo about the middle of June on her last voyage in the service of the Portland and Asiatic Steamship Company.

IT is expected that the Standard Oil barge, No. 91, will be righted in about a week, when it will be taken to St. Johns for drydocking and a thorough inspection. The barge has received very little damage but it will cost \$50,000 to place it in commission again.

Eureka.

DURING THE month of May, 164 vessels crossed Humboldt bar, 82 arriving and 82 departing. During the month of April but 147 vessels crossed the bar, 76 incoming and 71 outgoing. This shows an increase of 17 vessels in the number which crossed the bar, while six more vessels were on the arrival column for May than during the month of April, and 11 more departed during May than in April.

SOUTHERN COAST NOTES

San Diego.

THE BOARD of harbor commissioners granted a permit to L. J. Allen, a stone and sand contractor, to construct a wharf 25 feet wide by 450 feet long at the foot of Eighth street.

Bids for the dredging of a ship channel across the outer

bar at the entrance of San Diego harbor were received at the United States Engineer's office from the North American Bridge company, Spreckels Brothers' Commercial Company and the San Francisco Bridge company. Thirty thousand dollars will be spent on the project.

It is proposed to dredge the harbor to a depth of twenty-eight feet at low water and to make it two hundred feet wide if the funds available are sufficient.

The bids were as follows: North American Bridge Company, 28.74 cents per cubic foot; Spreckels Brothers' Commercial Company, 29 cents; San Francisco Bridge Company, 43 cents.

Los Angeles.

AN ORDINANCE calling for a special election for a bond issue of \$245,000 to be used in the construction of municipal water frontage, wharves and docks, has been passed by the Los Angeles city council.

THE MEXICAN-American Holding and Improving Company is contemplating the establishment of a steamship line between San Pedro and Manzanillo. The headquarters of the concern are in Salt Lake City and a proposition for the establishment of the line will be brought up at the next meeting of the directors of the company.

JEBSSEN & OSTRANDER have secured an option on the gasoline schooner City of Long Beach. The consideration is to be \$22,500 and the purchasers have until June 21st to decide.

The steamer, if purchased, will be operated between Mexico and Central America where the large liners of the Jebesen company have difficulty in landing.

Long Beach.

A BOND election will be held in August at Long Beach for issuing \$300,000 worth of bonds to build municipal docks.

THE FELLOWS boat works of Terminal are anxious to secure a site on the inner harbor at Long Beach and establish a plant to be run in conjunction with their other establishments.

IT is rumored that the San Pedro yachtsmen will establish their headquarters at Long Beach.

Huntington Beach.

THE MERCEREAU Construction Company will build a concrete pier 500 feet in length at the foot of Twenty-first street, Huntington Beach, for the California Wave Motor Company.

HAWAIIAN ISLANDS NOTES

A wharf, capable of handling the large freighters of the Matson Navigation Co. and American Hawaiian Co. will be built by the Kahului Railroad Company, at Honolulu.

A serious scarcity of stevedores exists in the island at present, a large part of the wharf workers having taken the places of the Japanese laborers on the sugar plantations. As a result scheduled steamers are receiving slow despatch.

A contractor by the name of Leech has secured the contract, on a very low bid, for the building of the large government dock at Pearl harbor. It is thought that the contractor took the work at about the same price that it could be done on the mainland and under the peculiar local conditions he is sure to lose on the undertaking.

The old hulk Kaimiloa, which was once the navy of the Kingdom of Hawaii, is being repaired for use as a barge about the port of Honolulu and Pearl harbor. Captain Miller is fitting out the vessel and when completed he plans to have her carry oil to Pearl harbor.

The Inter-Island Steam Navigation Company is contemplating the building of a new passenger and freight steamer of about the same dimensions and build of their steamers Maui and Helene. These steamers are of special design and the most satisfactory ever used in the sugar carrying trade. They are steel vessels. The new steamer

will have accommodations for about forty passengers and will operate on the Kauai run.

SHIPBUILDING NOTES

Union Iron Works.

M. S. S. Lurline on dock to receive four new blades for propeller.

S. S. Eir on dock for general overhauling.

U. S. A. T. Thomas at works for dockage, cleaning and painting.

S. S. Fifield at works for new wheel and miscellaneous repairs.

S. S. Tallac, Sea Prince and Sea Rover at works for general repairs.

Ferry Ukiah at yard for new shaft.

S. S. Melville Dollar at yard to receive repairs, tank tops and hull.

S. S. Asuncion, Nevada, Manchuria and Ashtabula at works for miscellaneous repairs.

The booms on the mine planter Major S. Rhingold are to be altered.

J. Twigg & Sons Co.

Building self righting and bailing boat to be used for exhibition purposes at the A. Y. P. E.

George W. Kneass.

Building yacht tender which will be equipped with 3 h. p. Corson engine.

Stone Van Bergen.

Building schooner which is the counterpart of the schooner Triton. The principal dimensions are: 48.6 length; 12 feet in width and 4 feet draft. The boat will be 14 tons gross and 9 tons net.

Wm. S. Brusster Jr.

The Oregon Valley Land Company has awarded the contract for the construction of a twin screw ferry-boat for service on Goose Lake, Oregon, to Wm. S. Brusster Jr., and is to be running on August 15th on the lake. The boat was designed by D. W. & R. Z. Dickie and is 65 feet long, 20 feet beam and 6 feet deep and is to be driven by two 30 horsepower Doak gas engines which will give it a speed of nine miles an hour.

The hulls are to be built in sections, knocked down and shipped by rail to Alturas and thence hauled twenty-two miles by stages over the mountains to Goose Lake. The boat is to be used in connection with an auto stage line and has an auto runway in the center to carry freight, auto trucks and cabins on the sides, and a buffet for passengers.

The boat is to be called the Lakeview and will ply between Davies and Lakeview on a regular schedule, a run of about thirty-five miles which will avoid about sixty miles of staging.

BIDS WERE opened at Washington, June 8, for the construction of five torpedo boat destroyers, and the following firms were awarded contracts to construct one destroyer each: Bath Iron Works, at \$659,500; New York Shipbuilding Company, \$648,000; William Cramp & Sons, \$637,000; Newport News Shipbuilding Company, \$620,000. The Fore River Shipbuilding Company also will be awarded a contract for one at \$644,000.

THE VANCE Redwood Lumber Company of Eureka is having plans and specifications drawn for a new ferry boat, to replace the steamer Antelope on Humboldt bay, between the foot of G street and the railroad terminal at Samoa.

THE NEW steamers building at Newport News, for the San Francisco and Portland Steamship Company, are being rushed to completion and one will be launched October and the other in November. The company hopes to have the teamers operating by January of 1910.

THE ASSOCIATED Oil Company is having a steel oil-burning tank steamer built by the Newport News Shipbuilding Company. The steamer will run out of San Francisco and is to be furnished in a year at a cost of \$750,000. She will be 300 feet long, 49 feet in breadth and of 30-foot draft.

F. K. KRAUTH, chief of the Alameda, California, fire department, has requested the City council to consider the building of a fire tug for Oakland harbor. That the tug would have paid for itself in the recent fire which partly destroyed the High street bridge is the contention of Chief Krauth. The damage to the High street bridge from the fire amounted to between \$50,000 and \$60,000. Two idle steamers were lately destroyed, while lying in the estuary, through the want of adequate fire protectors.

WORK ON the steamer Klamath, which is being built at the Fairhaven shipyards, Eureka, by the McCormick Lumber Company of San Francisco, has advanced to such a stage that the lumber company hopes to launch the vessel on the early part of September.

WILSON BROTHERS Navigation Company, of Aberdeen, operating the steamers Harbor Belle and Harbor Queen on Grays Harbor and tributaries, have let a contract to the Matthews Shipbuilding Company of Hoquiam, for construction of a twin-screw passenger boat, to be christened "The Champion." She will have a length of 95 feet, beam 24 feet, depth of hold 6 feet, with accommodation for 200 passengers. Her twin engines are fore and aft compound type, 8x16x10, with a 50-inch propeller. She is designed on lines calculated to make her the fastest craft in the harbor.

WILLAMETTE IRON and Steel Works of Portland has secured the contract for building the machinery and a boiler for a new steamer for service on Coeur d'Alene Lake. The engines are expected to develop 500 horsepower, which will give the craft a speed of 18 knots an hour. The boiler will have 225 pounds steam pressure. The Lake Creek and Coeur d'Alene Railroad Company are the builders and owners of the boat.

THE CRAIG Shipbuilding Company of Long Beach, California have launched the tug built for the Western Pacific Railway company of San Francisco. The vessel cost \$75,000 and is the first ocean going boat launched at the Craig plant. The tug will depart for San Francisco where she will operate about the bay, in about three weeks. The vessel is 120 feet long and 24-foot beam. The depth of the hold is 13 feet. She is fitted with fore and aft marine condensing engines of 700-horse power. She is very strongly constructed and is named the Virgil G. Bogue.

THE SECOND fireboat for the city of San Francisco was launched June 15th and christened Dennis T. Sullivan in honor of the late Chief Sullivan of the S. F. F. D., who lost his life through the fire of April 18, 1906. Alice Hefferman, daughter of Henry F. Hefferman, a fireman who was killed while on duty, performed the christening ceremony.

MEETING OF THE STATE BOARD OF HARBOR COMMISSIONERS

June 10, 1909.

Contract for a clam shell dredger bucket for Dredger No. 3 was awarded to the Stockton Iron Works for \$1,890.00.

George A. Atherton offered \$5,000 for the small dredger and her equipment which the Board had offered for sale.

The Chargeurs Reunis have given up space at Union street wharf No. 2, as they could not retain same at rental of 50 cents per linear foot.

The contract with the Gray Bros. Crushed Rock Company for the construction of Section No. 11 of the seawall, was canceled and the Board will retain work already completed. Bids have been called for to complete work on said Section No. 11 of the seawall.

The contract for the construction of Section No. 8 of the seawall was awarded to the American Construction Company for the sum of \$80,000, with a unit price of \$1.50 per ton of 2,000 pounds for rock embankment.

The Associated Contracting Company was awarded the contract for the construction of Section 9 of the seawall for the sum of \$261,000, with unit prices as follows: \$6.50 per linear foot for 3 ft. 6 in. cylinder piers, not including spread base; \$2.60 per linear foot for concrete coverings over wood pile; \$1.20 per ton of 2,000 pounds for rock embankment.

Meeting of June 17, 1909.

Informal bids were opened for covering with re-enforced concrete standard and mooring piles for the period of one year. The contract was awarded to the Mercer-Fraser Co. for the sum of \$1.55 per linear foot.

The Associated Oil Co. requested the Board to hereafter make dockage bills against the Associated Transportation, instead of the Associated Oil Co., and that the former company be placed on the credit dockage list. The requests were granted.

Informal bids are invited for certain repairs to the clam shell bucket of Dredge No. 3, as per plans and specifications now in preparation by the engineer of the Board. Bids will be opened June 21, 1909, at 9 o'clock A. M.

The lease of Seawall lot No. 4, subdivision A, was awarded to the National Packing Co. for the term of 25 years, at the following monthly rentals:

From July 1, 1909, to June 30, 1914, inclusive, \$152 per month; from July 1, 1914, to June 30, 1919, inclusive, \$160 per month; from July 1, 1919, to June 30, 1924, inclusive, \$168 per month; from July 1, 1924, to June 30, 1929, inclusive, \$176 per month; from July 1, 1929, to June 30, 1934, inclusive, \$184 per month.

The lease of Seawall lot No. 4, subdivisions B and C, was awarded to the Midland Warehouse Co. for the term of 25 years, at the following monthly rentals:

First five years from date of lease, \$188 per month; second five years, \$197 per month; third five years, \$207 per month; fourth five years, \$218 per month; fifth five years, \$229 per month.

The secretary was directed to collect bill amounting to \$4,409.17 against the Western Fuel Co. for one-half of cost of labor in repairing Folsom street wharf under the coal bunkers.

Bill against the Gray Bros. Crushed Rock Co. for leasing of dump barge, amounting to \$155, was ordered canceled.

Secretary instructed to call for proposals for the furnishing and delivery of stone for the completion of section No. 11 of the Seawall.

Bills amounting in aggregate to \$41,389.71 were allowed and ordered paid.

Secretary was directed to notify tenants at Mission No. 1, Stuart street wharf and at the Spear street wharf that said wharves are to be removed at an early date, and that the Chief Wharfinger will provide them with accommodation elsewhere upon application to him.

Chief Wharfinger was instructed to locate other docking space for the State tugs than at the place now occupied by them.

STEEL SHIP "EDWARD SEWELL"

The Steel ship "Edward Sewell," which we illustrate this issue as our frontispiece, is one of the seven large steel sailing vessels operated by Bates & Chesebrough's "Shippers' Clipper Line" between San Francisco and San Pedro and Philadelphia and New York.

In the early days practically all of the export and import business of the coast, which did not go by rail, was freighted in the old wooden clipper ships, which have now practically all gone out of business. The advent of steamers followed the decline of the sailing ship business and for many years practically no cargo was moved from the Pacific to the Atlantic in sailing vessels.

However, again conditions have changed and owing to the increased production of California exports, as well as the present system of large importers to buy cheaper, in large quantities, and carry in stock import articles not intended for immediate consumption, the opportunity was again afforded the sailing ship to enter the inter-coast trade.

Messrs. Arthur Sewell and Company of Bath, Maine, constructed especially for this trade seven large steel ships for the Shippers' Clipper Line, all of which are identical with the "Edward Sewell," and the finest type of craft under canvas. These vessels are four masted steel ships with two decks, 332 feet long, 45 feet in breadth and 26 feet deep. They carry each 5500 tons.

With a view of developing San Pedro business, these ships were especially constructed so that they draw only twenty-two feet of water, when loaded.

In reality the Shippers' Clipper Line is operating seven large steel "floating warehouses" between the Pacific and Atlantic coast, carrying those commodities which are produced at one season of the year, but intended for consumption during the following eight or ten months.

When Bates & Chesebrough started the revival of the clipper business, the result was watched with much interest by many shippers wishing to take advantage of same, and now that full cargoes are assured, the fleet will probably be increased to ten vessels.

PERSONAL.

Pay Inspector H. W. Reynolds is detached as navy pay officer at San Francisco to the Tennessee as fleet paymaster of the Pacific fleet.

Captain Murphy, who was stricken with apoplexy May 13th, while at the wheel of the steamer Encinal in crossing the bay of San Francisco, is getting along as well as can be expected, and will soon be around as usual in a few weeks.

Chief Officer W. D. Watson of the Oceanic Steamship Company's steamer Mariposa, will, upon the completion of one more round trip to Tahiti, retire permanently from the sea. He has been in the employ of the company on the same steamer for the last twenty-six years, having come out from the East on her when she was first brought around the Horn.

Rear Admiral Uriel Sebree has relieved Rear Admiral Swinburne of the command of the Pacific fleet, which includes the first and second division. The new commander-in-chief will hoist his flag on the Tennessee instead of the West Virginia, the flagship of Rear Admiral Swinburne.

Rear Admiral Sebree will be succeeded as second in command of the Pacific fleet by Rear Admiral Barry, at present stationed in the East.

Captain Charles Reed has resigned as State Bar pilot for the Bay of San Francisco, and Charles J. Brugiere will succeed him. Captain James Shea, formerly in the service of the Pacific Coast Company, will succeed the late Captain Boyd.

Edwin Orrett, formerly connected with the Pacific Mail Steamship Company at San Francisco as traffic manager, has been appointed in the same capacity for the Osaka Shosha Kaisha (Osaka Mercantile Company, limited), with headquarters at Tacoma. The appointment becomes effective June 1st.

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Protection has never been successful on the high seas and never will be. The combined skill of the foremost American statesmen has failed to adjust the principles of protection to the American merchant marine. Subsidies appear to be equally ineffective. Various alliances with foreign nations have been advocated and as quickly abandoned. Subventions and ocean mail bills have been introduced and vigorously contested in the halls of Congress. Free trade, as applied to the purchase of ship building material, ready made ships, and the employment of seamen has been wisely relegated to obscurity. The humiliating experience of the great battleship fleet being served with coal by foreign vessels in every port of entry of the celebrated cruise has been commented upon by all nations of the world. American statesmen visiting foreign countries have been subjected to unjust criticism for taking passage on foreign vessels; others again for having had placed at their disposal a vessel of the United States Navy. Statistics prove conclusively that the Oceanic Steamship Company, of San Francisco under the ocean mail law of 1891, operated three 16-knot steamers between the Golden Gate, via Hawaii, Samoa, New Zealand and Australia, receiving for this service \$16,659 per voyage, compared with the same service rendered by German steamers given \$41,604; by French steamers given \$47,814; by Japanese steamers given \$21,917, by British steamers given \$23,077, and all of the foreign vessels named being manned at less than one half the cost to the American vessels. That, during the operation of the American steamers, trade between the United States and Australia increased from \$12,000,000 to \$29,000,000 a year.

The United States pays \$2,000,000 annually to foreign vessels for the transportation of American goods. In spite

of the Monroe Doctrine, American merchants are compelled to send their business letters to South America via Europe and in foreign vessels. American soldiers, munitions of war, and commerce with Philippine Islands are carried in foreign bottoms. The United States now pays about \$1,200,000.00 annually for its ocean mail service. Germany pays \$1,330,000 per year to a single steamship company for mail service in 15-knot ships to Japan, China and Australasia. The British Government pays \$1,650,000 annually to the Peninsula and Oriental line for the same service and route performed by the German company.

The British Government pays about \$6,000,000 per year to British steamers exclusively for postal and admiralty purposes. France expends about \$5,000,000 annually on her ocean mail service, and Japan per reports of 1907 spent about \$4,000,000.

Government ownership of an American merchant marine has been advocated by the press and public. Party platforms for a number of years have contained abundant merchant marine timber. Every possible whim and caprice of the public has been appealed to for the rehabilitation of the American merchant marine. The theoretical and practical side of every phase of the subject and idea advanced has been written and rewritten. Examples of the commercial progress of most if not all of the civilized countries of the world, have been sufficiently illustrated to convince the most skeptical that American commerce has been neglected.

WHAT FREE TRADE MAY DO.

Editorial of the Cables American, Manila, P. I.

If reciprocal free trade is established between the United States and the Philippine islands a radical change will be worked in almost all lines of business here, to say nothing of the tremendous lessening of the insular revenues and consequent necessity of raising public funds by increased internal taxes.

Considering first the impetus it will give to the development of the natural resources of the islands for importation to the great market which will be opened in America we are confronted with a condition of mixed hope and regret. Hope that the admission of rice, sugar and tobacco, as well as the scores of other minor products of the Philippines, will urge the present owners and renters of land to redouble efforts, and that American capital will be induced to invest in the magnificent opportunities offered here; regret that the mercenary and selfish spirit of Congress and the great interests which dominate to a degree the American National Legislature have been able to overcome the American sense of justice which should fling wide open the door to America's benighted wards here, without hindrance or limit.

It is true that reciprocal free trade is all that can be expected. We could not hope that Congress would permit the gratis influx of Philippine products and permit the Filipinos to deny the same privilege to the United States. This liberal intercourse between the countries should, and undoubtedly will, stimulate commerce between them, but with a limitation of 300,000 tons of sugar, we cannot expect the great capitalists of the United States to go broadly into the growing of cane and its refining here.

While compared to the importation of Philippine sugar into the United States now, or to our possibilities in that

direction, with the present retarded state of agriculture, 300,000 tons seems a great goal at which to aim, the possible output of sugar from the Philippines in ten years of persistent development on a great scale, make the bounds set irksome and one acquainted with the methods of capital would understand the difficulties of bringing it here with these restraints.

However, even with a limit set to our products, the tearing down of the barriers which now interrupt trade between the United States and the Philippines must work for the speedy and great good of these islands. It makes them more a part of America, binds their interests together closely, draws mother and child more intimately, and fixes the attention of the United States, more and more, upon this furthest national outpost.

But will not free trade turn business topsy-turvy here? It is an axiom of commerce that people buy in the cheapest market, and with the offerings of Europe suddenly raised from five to fifty per cent above those of America, the latter country must assuredly have the preference as a salesman. So that the manufactured and unmanufactured goods of Europe which, under the present tariff, compete with those from America will, by the very law of trade, be ousted, unless their merits are so great as to fetch their higher price.

Hardware, cottons, woollens, and a thousand items of the wholesale and retail merchant here must come, in a majority, from America. This will mean a radical, almost startling, diversion of the bulk of business to the United States. Some firms here it will doubtless affect very seriously, but these which are adaptable will quickly put their ships into the new channels, and probably by reduced figures largely increase their present yearly balances.

On the other hand, what are we going to do for the public funds with which to administer the government and improve the insular properties? The government has looked ahead and believes that with the internal revenue as it is and perhaps some increases or adjustments, it can dispense with the great custom house receipts, which have, until recently, been the bulk of the treasury holdings, and which, with free trade, must shrink greatly. It will be a matter of weighty finance, and only time can prove our ability to dispense with the tariff takings.

The Cablenews believes firmly that free trade with the United States, coming and going, is the only solution of our economic problem here. There may be a great deal of friction at the start, but it will work smoothly shortly. And above all it will tie America to the Philippines with the sinews of war, the absence of which, until now, have made their relations rather like that of the trial marriage one reads of nowadays.

TRADE POSSIBILITIES.

The legislative council in Kingston, Jamaica, advocates the placing of Portland cement on the free list. Concrete construction in Jamaica is extremely popular, the proposed change being decidedly in favor of American cement. England formerly controlled this industry, and many representatives of English manufacturers are at present on the ground. The short distance and lower freight rates from the United States, coupled with the amount of cement to be used, should induce American manufacturers to develop the market for Portland cement in Jamaica.

Foreign postage rates apply to all mail matter sent to Jamaica; short postage is subject to a double penalty, and much of the mail matter sent from the United States has caused unfavorable comment and dissatisfaction among

the business classes. For letter to Jamaica, the first ounce or fraction thereof is five cents; each additional ounce or fraction thereof three cents. Single postal cards two cents.

A new cement factory has been opened in the capital of Venezuela. The cement from the new factory is sold in barrels of 175 kilos (375 pounds) for 16.5 bolívars (bolívar equals 19.3 cents) per barrel.

The imports of potatoes into the United States this spring have been enormous. The receipts of the first three months of 1909 were 3,629,158 bushels, against 128,676 bushels in the same period last year. Heavy cargoes have come from Europe, and shipments have even been made from Mexico to this country.

Replying to an Oregon inquiry, Consul General Charles Denby of Shanghai writes that excellent coke is made in China at two places, viz.: Hankow, China, and Tongshaw, Chihli Province, North China, and that from both these places coke could be shipped in ocean-going ships to the United States. [While the United States is the greatest coke manufacturing country in the world, there were imported in the fiscal year 1908, 119,196 tons of coke, valued at \$549,044. Canada supplied \$203,887 worth, the United Kingdom \$189,758, Australasia \$73,529, and Germany \$65,418. From China came ten tons, valued at \$90. During the period mentioned several thousand coke ovens in this country were idle on account of business depression. Nearly all of the importations of coke, however, are into California, Montana and Idaho.—B. of M.]

The exports of domestic merchandise from Alaska to the United States in the calendar year 1908 amounted to \$12,255,255, of which \$9,282,952 was for canned salmon. The salmon output of Alaska equals the combined catch of British Columbia, the United States proper and Japan. The recorded shipment of domestic gold from Alaska to the States last year was \$18,021,403, with some additional amounts brought by individuals and by mail.

The United States Bureau of Manufactures, Washington, D. C., will forward information to merchants and manufacturers generally in the United States who wish to extend their trade in foreign countries for the following goods. In addressing the Bureau of Manufactures reference should be made to the numbers following the goods mentioned:

Windmills, 3395, 3485; motor boats, 3401, 3427, 3459, 3486; municipal improvements, 3403, 3467; American beef cattle, 3404; harnesses, 3418; agricultural implements, 3422, 3444; industrial developments, 3429, 3471; paper sacks, 3434; railroad ties, 3435, 3457; building materials, 3440; abattoir machinery, etc., 3445, 3488; beds, iron and brass, 3456; graphite, 3464; harbor and irrigation, 3473; general agents, 3475, 3478; government building, 3481.

Consul Walter C. Hamm, at Hull, England, reports that a shipping firm in Hull has established a regular line of steamers and is sending freight from that port to San Francisco by way of the Tehuantepec Isthmus.

The ships touch at Coatzacoalcas, the eastern terminus of the Tehuantepec Isthmus railroad, and the cargo is transferred to the railroad and reshipped from the Pacific terminus to whatever port it is destined on the west coast of North and South America. Shippers claim that they find this route cheaper and more desirable for bulky goods than by the way of Cape Horn.

One shipper of crude freight, by this route, states that the charge per ton for freight from Hull to San Francisco is 35 shillings (\$8.51) while the freight from Hull around Cape Horn, by sailing vessel for the same class of goods, is 25 shillings (\$6.08) per ton. But the saving comes in time,

interest and insurance. The time between Hull and San Francisco by the Tehuantepec route is one month, while in a sailing vessel around Cape Horn it is 180 days. The interest and insurance of five months are accordingly saved, which makes the route by way of Tehuantepec certainly as cheap, if not cheaper and the goods are delivered in about one-sixth the time.

A leading Japanese cotton importing firm states that arrangements have been made for the importation and distribution at Nagasaki hereafter of all American raw cotton exported from San Francisco and required by the mills in Kiushiu. This arrangement is expected to prove of advantage to the Pacific Mail Steamship Company, whose steamers call for coal, and are welcomed by the people of Nagasaki, whose commercial prospects have not been encouraging since the close of the war with Russia. On the other hand, this will withdraw from Moji an important import trade, which during 1908 amounted to 6,795 bales, of about 500 pounds each.

During the same period there were also imported into the district via Moji 55,616 bales of 300 pounds each, of Indian cotton, and 1,317 piculs (175,600 pounds) of Chinese cotton. At Nagasaki 26,189 piculs (3,491,866 pounds) of Chinese cotton were imported.

In consequence of the great depression in trade the imports of American raw cotton during the past year were about one-half of the quantity required by the mills of Kiushiu under normal conditions.

The consolidation of various industrial and other concerns by means of amalgamation has now become quite the order of the day. The emigration companies, whose business has suffered a severe blow owing to the practical stoppage of Japanese emigration to America and elsewhere, have a proposal on foot to merge all the existing companies into one substantial institution. The Kokoku, Tairiku, Sanyo and five other companies have already signified their approval for the amalgamation scheme and negotiations are now said to be proceeding with the Nippon and the Tokyo emigration companies. It is the intention of the promoters to establish a concern with a paid-up capital of 500,000 yen (\$249,000) under the name of the Teikoku Shoku-i min Kaisha (Imperial Colonization and Emigration Company).

210 motor cars and motor bicycles have been registered in the office of the commissioner of police for Rangoon, the capital of Burma.

The German-American Patent Treaty, ratified by the United States Senate April 15, 1909, and awaiting ratification by the German Reichstag:

Article I. The provisions of the laws applicable, now existing or hereafter to be enacted of either of the contracting parties, under which the non-working of the patent, working pattern (Gebrauchsmuster), design or model carries the invalidation or some other restriction of the right, shall only be applied to the patents, working patterns (Gebrauchsmuster), designs or models enjoyed by the citizens of the other contracting party within the limits of the restrictions imposed by the said party upon its own citizens. The working of a patent, working pattern (Gebrauchsmuster), design or model in the territory of one of the contracting parties shall be considered as equivalent to its working in the territory of the other party.

Article II. This agreement shall take effect from the date of its promulgation and remain in force until the expiration of 12 months following the notice of termination given by one of the contracting parties.

Article III. The present agreement shall be ratified and

the ratifications shall be exchanged at Washington as soon as possible.

Panama: Rates of duty on cattle: By the law of December 3, 1908, the import duty on male cattle is fixed at \$20.00 per head and on female cattle at \$15.00 per head. These duties apply to both live and dead cattle. Fine cattle for breeding purposes imported from Europe, the United States or Jamaica are admitted free of duty. The executive is authorized to reduce up to 50 per cent the duty on cattle should the high price of meat of domestic animals justify such action. Imported carcasses are subject to the abattoir tax in addition to the import duty.

In the importation of slaughtered cattle four quarters will be considered as equivalent to a carcass. If carcasses are imported cut up into parts smaller than quarters, 400 pounds of meat will be considered as constituting one carcass, and the duty will be levied on this basis.

Few firms in Belgium are better known in the industrial development of that country than Aletiers Jaspas, Societe Anonyme; founded by Joseph Jaspas in the city of Liege in 1842; the firm has steadily progressed in the manufacture of machine tools; and at present, are enlarging their pretentious plant for the manufacture of a superior type of milling machine. Present equipment of the firm includes many machines of American manufacture, of which the following is a partial list: Prentice Bros. Co., Worcester, Mass., drill and lathe; Whitecomb-Blaisdell Co., Worcester, Mass., planer; The Bullard Machine Tool Co., Bridgeport, Conn., double vertical lathe; Hendey Machine Co., Torrington, Conn., shaper; Pratt & Whitney Co., Hartford, Conn., threadmill and turretlathe; Browne & Sharpe Mfg. Co., Providence, R. I., gear cutter; Dietrich and Harvey Mach. Co. Baltimore, Md., open side planer; R. K. Le Blond Mach. Tool Co., Cincinnati, lathes; Van Wyck Mach. Tool Co., Cincinnati, lathe; G. A. Gray Co., Cincinnati, planers; The National Machinery Co., Tiffin, Ohio, threading machine; W. F. and J. Barnes Co., Rockford, Ill., grinder; Gisholt Machine Co., Madison, Wis., turret lathe.

The following foreign-model tools are also in use: Ateliers Fetu-Defize, Liege, Belgium, radial drill; Biernatzki & Co., Chemnitz, Germany, hob and cutting-off machine; J. E. Reinecker, Chemnitz, Germany, vertical miller; Droop and Rein, Bielefeld, Germany, horizontal borer; De Fries & Co., Dusseldorf, Germany, lathe; Richard & Co. (Limited), London, England, radial and sensitive drill; J. J. Jones-Pollard-Shipman Co., Leicester, England, drill.

Commenting upon the relative merits and cost of American and foreign-made machines, Mr. Albert Jaspas declared the Browne and Sharpe gear cutter to be superior to the Biernatzki hob tool; at the same time he spoke highly of the Biernatzki cutting off tool; for the latter machine the price paid was 2400 francs (\$473.20). The price quoted for a Hurlburt-Rogers cutting-off machine of the same type was 3000 francs (\$579). In each case the tool was of the 4-inch type. The price paid for the Reinecker vertical miller was 10,000 francs (\$1930). The Gisholt machine installed was bought second hand and Mr. Jaspas seemed to think that he had struck a very good bargain in securing the same for 4000 francs (\$772).

The price paid for the Droop and Rein horizontal borer, having a bed of 3 meters length, was 6000 francs (\$1,158). This price was paid for delivery in Liege. The price is about one-third of that which is being commonly quoted in Belgium for a Lucas machine of the same approximate size and type.

There are two planers from the G. A. Gray Co. of Cincinnati in service. They are highly appreciated. A Swedish firm, Kopnigs Mekaniska Verkstad of Kopnig, has delivered an open side planer built after the Richards designs.



YACHTING SECTION



The Vancouver Yacht Club, J. J. Banfield, secretary, is rapidly increasing in membership, and constant additions are being made to the fleet of motor boats connected therewith. The use of motor boats is becoming largely a fad at this port, as it enables parties to make week-end trips to the various islands and other nearby points for camping out in the open during the summer and early fall months.

Seattle, Wash., June 9.—The yacht Spirit II, the American challenger for the international Dunsmuir cup, was launched at 9 o'clock last night from the shipyards of D. Rohlf's Sons & Co., amid the cheers of hundreds of yachting enthusiasts, who gathered there to witness the event. The Spirit II, like the Spirit I, was designed by Ted Geary. The Spirit II is declared to be better all around than the craft that won the cup in 1907, and lost it in a sensational finish a year later. The new vessel carries more sail. The series of races for the cup will be held on Puget Sound in July.

The new 40-foot tunnel boat being built by Captain Rhodimer, of the McKinley boat house, is rapidly nearing completion. The new boat will be one of the largest pleasure launches on San Pedro Bay, being designed for a carrying capacity of 100 passengers.

The Golden Gate Life Saving Station has recovered a small painter, lost from a yacht of the Corinthian Club. The owner can have it by applying at the station.

The Pacific Motor Boat Club of Belvedere will hold a series of races in Belvedere Cove, and the cup presented by Commodore Frank Bowers will be hotly contested for.

While in a rough sea off Black Point the yacht Bonita, Skipper White, broke her mast and became disabled. The accident might have proved dangerous but for a passing launch, which took the yacht in tow and conveyed it to Oakland harbor.

William Musfelder of the S. F. Y. C. is having his fishing launch Isabel remodeled into a hunting cabin cruiser and will be finished in hardwood. The work is being done at the office of Stone & Van Bergen.

E. F. Mitchell and Bernard Clunie have sold the game little motor boat General II to a man in Coos Bay, Oregon. A new racer, "which will walk all around any boat in the bay, Konocti included," is being constructed for Mitchell.

The Diablo is now being finished in white satin and fitted with silk curtains, electric lights, and portieres by the Truscott Boat Agency of Alameda.

A 12-foot tender, built by the Gorham Engineering Co., for launch Peerless, sank off the Alameda mole Sunday, June 13th. The boat had a 3-horsepower Gorham engine installed in her and as she only weighs about 60 pounds, she may have floated a long way before striking the bottom. The loss is about \$800.

A. A. Mabie, formerly a member of the Corinthian Yacht Club, has pledged his love, life, launch, etc., to Miss Edna Carman, and will spend his honeymoon on his launch Diablo, or, between times, "The Bandbox." It maybe possible that he will cruise down the coast to Santa Cruz, after spending a honeymoon of a week on the bay.



A JOLLY CROWD

A fleet from the Pacific Motor Boat Club took a trip up the river to Colusa, and will be gone until Monday. Commodore Bowen's Corsair, Captain Edward Hax's Liberty, Captain Wallach's Glory, Captain Plant's Wanderer and some of the smaller boats went on the cruise.

The schooner yacht Lurline, winner of both ocean races from San Pedro to Honolulu, is listed for sale by Pacific Launch and Yacht Exchange. The Lurline, although an old boat, is in fine condition, and it is hoped by our local yachtsmen that she will be purchased by some one about the bay.

Cable reports from San Salvador state that a tax of \$50 silver per annum is to be imposed on foreign commercial travelers in San Salvador.

Spain has authorized the establishment of a press telegraph service at the reduced rate between Spain on the one part and New York and Havana on the other, accepting the reductions proposed by the cable companies and reducing 50 per cent the Spanish terminal rate. This service will be governed by the international regulations which may be in force.



JOHN NORBIE'S LAUNCH OF C. Y. C.

Sappho, which is illustrated this week, belongs to ex-Commodore W. W. Haley of the Golden Gate Yacht Club,



SAPPHO—G. G. Y. C.

and has won the first out of a series of races to be run for the Sorenson cup. The next race will be held some time in September.

Joseph Pugh's yacht Mah-pe, the representative of the South Coast Yacht Club in the race for the Corinthian cup, to take place in San Francisco, July 19, arrived June 15 in tow of the steamer Hanaki. Captain Pugh is a member of the San Pedro Yacht Club, and will remain in San Francisco indefinitely to participate in a number of races.

It is expected that the forty-footer Mah-Pa will give the Corinthians the closest rub they have ever been up against in the struggle Saturday for the Perpetual cup now held by the latter club.

Presto, the Corinthian representative in the race, is in fine trim, having been hauled on the Klamam & McAdam ways and thoroughly cleaned.



CORINTHIAN FLEET ON RECENT CRUISE TO VALLEJO

AMERICAN GAS ENGINES IN HIGH FAVOR IN CANADA.

Consul-General George N. West is in receipt of inquiries in regard to the possibilities of placing motor boats and their equipment in British Columbia, and the possible demand during the present year, to which he replies from Vancouver:

There is a large number of motor boats used at this port and the nearby vicinity, as the coast line is broken by numerous bays, inlets and many inhabited islands, which are inaccessible except by water communication. The boats are of various classes, many being used for pleasure only, and others for passenger and freight purposes, while many small ones are used by the fishermen, who supply the local market from catches made in the adjacent waters of the Gulf of Georgia and Howe Sound.

Quite a number of strong but roughly constructed hulls, with engines from 25 to 60 horsepower, are used in the rivers, inlets and lakes by persons engaged in the lumber business, for towing logs to the temporary booming grounds, where the large rafts to be towed to the mills are collected, and also for taking in supplies to the loggers' camps. The hulls of all classes of boats are generally constructed here, the engines and other equipment being imported and installed, except in cases of boats intended for pleasure purposes only, when a more highly finished boat is desired.

Manufacturers of engines and other motor boat equipment would meet with great success if agents of manufacturers visited sellers and intended purchasers in person. All catalogues, circulars and other literature received at this office (Consul-General George N. West, Vancouver, B. C.), relating to gas and other engines and equipment of all kinds are placed on file. Every inquirer has the same placed before him for examination, and he is advised as much as possible in regard to correspondence with various manufacturers on the subject of proposed purchases. (The addresses of wholesale and retail dealers in gas engines and motor boat equipment are filed for reference at the Bureau of Manufactures, Washington, D. C.)

Concerning the motor boat industry in the Hamilton district of Canada, Consul James M. Shepard states that the leading builders there anticipate a larger output for 1909, due to many orders already received and those expected. The Consul also says:

The finest craft in the way of a private launch ever built here is now being completed at Aldersee & Jutter's boat and launch yard. The boat is 55 feet long, planked with cypress wood, and the interior finished in mahogany. It contains a 4-cylinder 17-horsepower (American) engine, and is built for salt water. A hunting cabin cruiser is also on the stocks in this yard. The market for boats built here is limited to Ontario and Quebec. A few are sent to Manitoba, but the freight cost prevents competition with American builders there.

American motors and marine engines are considered superior to the Canadian, and more desirable. They are placed in the best boats, but the local manufactures are used in the cheaper varieties. The lowest estimate of this year's output is 100 boats, varying in price from \$150 to \$6,000. All Canadian builders are familiar with the American makes, machines, prices, etc., and they prefer to install the high-grade standard motors and engines whenever their customers are willing to pay the extra cost. They do not value the cheaper American goods above the Canadian.

CHARTER MARKET

While freights show little improvement, considerable tonnage has recently been chartered to load lumber for offshore ports. In contrast to the movement in foreign lumber, no coastwise fixtures are announced.

Only one change in rates is reported by the weekly circular of the Shipowners' Association of the Pacific Coast. The asking rate for steamers from North Pacific ports to Hongkong has risen from 32s 6d to 35s, while there has been an advance from 30s to 31s 3d for steam tonnage to North China ports and Japan. Otherwise freights remain as they were. The West coast still rules low from 38s 9d to 42s 6d.

There is nothing doing in grain charters at present. The government is again taking tramp steamers to bring coal from the Atlantic coast to San Francisco or Puget sound, and this prospective tonnage is having a weakening effect upon the market. These freighters will seek outward cargoes from the North Pacific and grain exporters are looking for lower rates. Thus far not a single steamer has been taken for fall grain.

In addition to four tramps chartered to carry coal to Manila for the United States government, nearly a dozen have been fixed to freight coal to this coast. In this fleet are included the British steamers Cape Finisterre, Huttonwood, Hynford, Riverdale, Baron Napier, Belle of Scotland, and Norwegian steamers Torsdal and Guernsey. It is understood that they are to receive about \$3.30 per ton.

While there have been from 25 to 30 sailing vessels chartered to place in the grain trade out of Portland the coming season, the exporters have made no particular attempt to add to their tonnage by picking up the available tramps roaming about in different quarters of the globe. The first tramp taken usually excites more than ordinary interest in shipping circles. Last year the bulk of the crop was handled by this class of tonnage, and it is predicted that a big portion of the new season's yield will be forwarded in the same manner to the distant markets.

Among the other tramps which will soon be around on this coast and available for pressing into the grain trade is the Dutch steamship Nederland. She will sail from Baltimore this month for Guaymas and San Francisco with a cargo of railway iron. After this cargo has been delivered there is every likelihood that the craft will be engaged to transport wheat to the United Kingdom. She was one of the fleet to clear from Portland with a cereal shipment last season.

TACOMA, June 5—As the season advances reports from east of the mountains concerning the grain crop are more and more encouraging, and there is every indication at the present time of a heavy export season from Pacific Northwest ports.

"Liverpool mail advices give the following fixtures: Antwerp to San Pedro paid 17s, with stiffening north at 7s 6d; Antwerp to San Francisco Heads, for orders, 17s San Francisco, 13s Portland or Puget Sound; Hamburg to Honolulu, 16s; Nordenham to Portland, 6s, with wheat hence at 27s 6d; nitrate freights 20s 9d paid for June-July, 18s 6d to 19s for season.

"Weddell, Turner & Co.'s Australian freight report, dated London, May 4, says:

"West Australia—Handy July ship fixed to Paysandu at 27s 6d per load.

"South Australia and Victoria—Market quiet.

"New South Wales and Newcastle—Following coal fixtures are reported: (Steam) Philippines, 10s 9d. (Sail) West Coast, 14s; direct nitrate ports, 12s 9d."

During the month of May Portland's shipments of lumber to California ports amounted to 11,690,000 feet, while the total of lumber shipments out of Portland was 16,763,300 feet. As the principal mills were not running at more than half capacity an average of about 25,000,000 feet is expected for the months of June and July.

The Norwegian steamer Tricolor will take the place of the steamer Queen Helena which was chartered to carry a cargo of sugar from Java to Vancouver, B. C.

The British bark Muskoka, one of the fastest sailing vessels afloat, has been sold to French parties and will hereafter fly the flag of that nation. The consideration was in the neighborhood of \$75,000.

The Norwegian steamer Jethon will load lumber at Gray's Harbor for the Orient, having completed her time charter. American ship Aryan, coal, Baltimore to San Francisco at \$7.00; American bark Hawaiian Isles, coal, Baltimore to San Francisco at \$7.25; French bark Duquesne, new crop wheat, Portland for United Kingdom, at 27s. German steamer Walkure, new crop wheat, Portland to United Kingdom; Dutch steamer Nederland, new crop wheat, Portland to United Kingdom; British steamer Taunton, new crop wheat, Portland to United Kingdom; sailing schooner E. K. Wood, lumber, Portland to a California port.

The Alaska Steamship Company has chartered the steamer Leelanaw for three months and she will be sent to St. Michael and Cape Nome. Schooner Robert Lewers, railroad ties from Hilo to Redondo. Steamer Bessie Dollar, lumber, Portland to Australia. German steamer Eir, lumber, Columbia river to a Peruvian port. Schooner M. Turner, lumber, Gray's Harbor to South America at 38s 9d. British tank steamer Ashtabula refined petroleum, San Francisco to Orient. Schooner Balboa, railroad ties, from Hilo to Redondo.

A report has been circulated that the old Pacific Mail liner City of Pekin, which is now quietly resting in the bay of San Francisco, has been chartered in the lumber export trade. Inasmuch as the steamer has at the present time no boilers in place and it is not likely that sails will be sails, the report is probably erroneous.

MARINE DECISIONS

The United States circuit court of appeals recently ruled as follows in reference to salvage suits: "A salvage award made by a judge who saw the witnesses and was familiar with the locality and the special perils to which the salvaged vessels were exposed will not be reduced by an appellate court unless clearly and greatly excessive."

Ruling on loss of goods, the United States supreme court decides that "a carrier by water is charged with the burden of proving that damage to a cargo from sea water was occasioned by the perils of the sea within an exception in the bill of lading against damage and accidents of the seas."

Quartermaster's Office, 322 Arcade Annex, Seattle, Wash., June 10, 1909. The opening of proposals for new steamer on Puget Sound, set for 11:00 a. m., June 14, 1909, is hereby postponed to 11:00 a. m., June 21, 1909. W. S. WOOD, Major and Quartermaster, U. S. A.

OVERDUE VESSELS

THE PRESENT reinsurance rate on the British steamer Yoserie, which went ashore at Mocha island last March and later beached at Lebu, Chile, is placed at 90 per cent, which indicates that the salvage operations were unsuccessful. The Yoserie is a new steamer and belonged to Andrew Weir & Co.

THE BRITISH bark Holt Hill, which left Iquique, with a cargo of nitrate for the United Kingdom, December 23, and has not been reported for four months, is being reinsured at 3 per cent.

THE FRENCH bark Marchal de Noailles, posted at 3 per cent, arrived at Queenstown, May 23rd.

THE BRITISH ship Australian, which disappeared while on a voyage from Mazatlan to Sydney, has been withdrawn as uninsurable.

THE BRITISH bark Hongomont is posted at 4 per cent. She cleared from Sydney for Rotterdam December 24.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS

Office of U. S. Lighthouse Inspector, Twelfth District.
Entrance to San Francisco Harbor, California. List of Lights and
Fog-Signals, Pacific Coast, 1908, page 16, No. 25, and List of Lights,
Buoys, and Daymarks, Pacific Coast, 1908, p. 22).

Notice is hereby given that on June 1, 1909, one group of lights
on Light Vessel No. 70 was permanently discontinued, and the
characteristic is now ONE fixed white light during periods of 5
seconds, separated by eclipses of 10 seconds' duration.

By order of the Lighthouse Board.

W. G. MILLER.

Office of Lighthouse Inspector, Twelfth District.
San Pablo Bay, California. List of Lights, Buoys, and Daymarks,
Pacific Coast, 1908, page 30).

Notice is hereby given that San Pablo Dredged Channel Buoy
No. 15, San Pablo Bay, California, is reported almost submerged.
It will be replaced as soon as practicable.

By order of Lighthouse Board.

W. G. MILLER.

Office of Lighthouse Inspector, Twelfth District.
Point Cabrillo, California. List of Lights and Fog-Signals, Pacific
Coast, 1908, page 22, No. 58, and List of Lights, Buoys, and
Daymarks, Pacific Coast, 1908, page 36).

Notice is hereby given that Point Cabrillo Light-Station was
established June 10, 1909, on Point Cabrillo, about 350 feet from
its end, about 25 miles NNWly from Point Arena Lighthouse.

The light is of the 3d-order, flashing white every 10 seconds,
84 feet above the water, 32 feet above base of tower, and should be
visible 14 1/4 miles in clear weather, the observer's eye 15 feet above
the water.

The tower is a white octagonal frame structure with brown
trimmings and surmounted by a black cylindrical lantern. It
rises from the rear of a one-story, white, fog-signal building with
brown trimmings and red roof. Three white, two-story frame
dwellings, with red roofs, stand about 600 feet Ely from the tower;
a white barn with red roof, and several small outbuildings near by.

The approximate geographic position of the light, as taken
from Coast and Geodetic Survey Chart, No. 5705, is: Latitude,
north, 39° 20' (50°); longitude, west, 123° 49' (35°).

Point Arena Lighthouse 170° 36' true SSE 1/4 E mag.

Punta Gorda 335° 19' true NW 1/4 N mag.

The fog-signal, a 1st class compressed air siren, sounds thus:

TIDE TABLE TO WEEK ENDING SATURDAY, JULY 3.

Golden Gate Entrance to San Francisco Bay.

JUNE

Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
3rd. quar. E P	Sun.	6	7 10	0 9	14 54	4 6	19 05	3 5		
	Mon.	7	0 20	5 7	7 56	0 8	15 45	4 5	20 07	3 5
	Tues.	8	1 10	5 4	8 45	0 5	16 35	4 8	21 15	3 4
	Wed.	9	2 15	5 1	9 40	0 2	17 20	5 0	22 28	3 2
	Thur.	10	3 44	4 6	10 42	0 3	18 04	5 2	23 42	2 6
	Fri.	11	5 25	4 3	11 45	0 8	18 40	5 4		
	Sat.	12	0 50	1 9	6 55	4 2	12 30	1 3	19 18	5 6
	Sun.	13	1 42	1 2	8 10	4 4	13 24	1 7	19 56	5 9
	Mon.	14	2 32	0 4	9 20	4 5	14 12	2 1	20 45	6 1
	Tues.	15	3 24	0 2	10 24	4 6	15 04	2 4	21 14	6 4
New N	Wed.	16	4 14	0 8	11 24	4 5	15 51	2 8	21 54	6 4
	Thur.	17	5 00	1 2	12 20	4 6	16 40	3 2	22 34	6 3
	Fri.	18	5 48	1 3	13 15	4 5	17 28	3 3	23 15	6 5
	Sat.	19	6 34	1 3	14 08	4 6	18 18	3 4		
	Sun.	20	0 00	6 0	7 18	1 1	15 00	4 7	19 15	3 5
	Mon.	21	0 45	5 6	8 02	0 7	15 48	4 8	20 12	3 5
	Tues.	22	1 34	5 2	8 44	0 2	16 32	4 9	21 20	3 5
	Wed.	23	2 28	4 6	9 25	0 3	17 10	5 1	22 30	3 3
	Thur.	24	3 40	4 1	10 10	0 7	17 47	5 2	23 38	2 9
	Fri.	25	5 00	3 7	10 58	1 2	18 22	5 3		
1st. quar. E	Sat.	26	0 36	2 5	6 21	3 6	11 40	1 6	18 52	5 2
	Sun.	27	1 24	1 9	7 34	3 6	12 22	1 9	19 18	5 4
	Mon.	28	1 53	1 4	8 40	3 8	13 07	2 3	19 45	5 6
	Tues.	29	2 45	0 7	9 36	3 9	13 56	2 6	20 14	5 8
	Wed.	30	3 18	0 1	10 30	4 2	14 45	2 8	20 47	5 9
	Thur.	July 1	4 00	0 5	11 22	4 3	15 25	3 2	21 30	6 1
	Fri.	2	4 42	0 9	12 10	4 5	16 14	3 2	22 12	6 2
	Sat.	3	5 26	1 2	12 55	4 6	17 05	3 2	22 55	6 2

Time used, Pacific Standard, 120th Meridian W.

0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—after-
noon, higher numbers—12—afternoon time.
N.—New Moon, E.—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

Blast	Silent interval	Blast	Silent interval
2 sec.	2 sec.	2 sec.	24 sec.
By order of Lighthouse Board.			

W. G. MILLER

Office of U. S. Lighthouse Inspector, Twelfth District.
San Francisco Bay, California. List of Lights and Fog-Signals,
Pacific Coast, 1908, page 18, No. 37, and List of Lights, Buoys, and
Daymarks, Pacific Coast, 1908, page 25.)

Notice is hereby given that Four-and-One-Half Fathom Gas
Buoy, moored 2700 feet eastward of Pacific Mail S. S. Wharf, San
Francisco Bay, California, is reported extinguished. It will be
relighted as soon as practicable.

By order of the Lighthouse Board.

W. G. MILLER.

Captain Geo. Ankers of the U. S. A. T. "Dix" reports to the
Branch Hydrographic Office at Port Townsend, Wash., that on June
2nd, 1909, when in latitude 45° 51' N., longitude 130° 04' W., he
passed a large stump of a tree about 40 feet long and 6 feet in diam-
eter. Dangerous to navigation.

J. T. McMILLAN,
Nautical Expert, in charge.

Captain Fraser of the Steamer San Juan reports to this office
that on June 6th, 1909, when in latitude 34° 45' N., longitude 121°
30' W., he passed trunk of a tree 60 feet long and 2 feet thick, dan-
gerous to navigation.

J. T. McMILLAN,
Nautical Expert, in charge.

471a. Upon any foreign-built yacht, pleasure boat, or vessel
not used or intended to be used for trade, purchased after the
passage of this Act by a citizen of the United States there shall
be levied and collected a duty of 35 per centum ad valorem,
to be payable at the time of the first arrival of said yacht within
the jurisdiction of the United States after said purchase if said
yacht was purchased outside the jurisdiction of the United
States, or at the time of the purchase if said yacht was pur-
chased within the jurisdiction of the United States, but this

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	19	May 29	Channel getting broader.
Willapa Bay	27	Apr. 1	Depth at mean low water in channel to Raymond 15 feet.
Columbia River	*24	Feb. 16	
Nehalem River	9	Apr. 3	Channel 2-6 ft. south of buoy.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in chan- nel to Garibaldi.
Yaquina Bay	13	Mar. 12	Channel not shifting.
Siuslaw River	4	May 1	Beacon on bench in line with south side of gulch leads over bar.
Umpqua River	12	May 1	Channel is in good condition.
Coos Bay	17	May 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	8	May 4	Channel shifted north close to north jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	9	May 29	Channel straight.
Humboldt Bay	18	May 1	15 feet in south channel at low water; north channel crooked and difficult.
San Pedro Bay	20	Apr. 15	No change in channel.
San Diego Bay	25	May 3	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

*About.

duty shall not be levied more than once on the same yacht. Any yacht upon which the duty has been paid as above prescribed shall be entitled to all the privileges and shall be subject to all the requirements prescribed by Sections 4214, 4215, 4217, and 4218, of the Revised Statutes and Acts amendatory thereto in the same manner as if said yacht had been built in the United States, and shall be subject to tonnage duty and light money only in the same manner as if said yacht had been built in the United States. So much of Section 5 of Chapter 212 of the law of 1908, approved May 28, 1908, as relates to yachts built outside the United States and owned by citizens of the United States shall not be applied to yachts on which duty has been paid as prescribed in this section.

VALUE OF IMPORTS AND EXPORTS OF THE UNITED STATES FOR MARCH, 1909.

Merchandise Imports.

Free of duty.....	\$61,284,163
Dutiable	72,135,134

Merchandise Exports.

Domestic	\$136,652,339
Foreign	2,550,381

Gold.

Imports	\$5,161,648
Exports	21,252,462

Silver.

Imports	\$3,279,531
Exports	5,079,287

Portland.

The United States Lighthouse Inspection Service is investigating a serious handicap to navigation at the mouth of the Willamette river, and will secure the removal of the obstruction if possible. Running in a southeasterly direction from the Willamette river is a row of trees and brush which obscures the entrance to the Willamette from vessels bound down the Columbia and likewise shuts off the view of pilots bound down the Willamette of vessels which may desire to enter the mouth of the river from a point above the light. While the light is plainly visible from both the Willamette and Columbia rivers, it is necessary for vessels approaching the mouth of the river, from either the south or west, to signal by one long blast of the steam whistle. In case of heavy wind or fog the distance at which the signal can be heard varies, and in the opinion of steamboat masters the removal of the row of trees would greatly benefit matters. It would permit an unobstructed view of both rivers.

The Hamburg ship Aster, which sailed from this port, has arrived in Liverpool with part of her cargo damaged. The ship met with heavy weather during the voyage and over 3,000 bags of flour and 50 bags of wheat are more or less damaged.

Vessel entered from foreign ports.....	1
Vessels cleared for foreign ports.....	4
Vessels entered from domestic ports.....	54
Vessels cleared for domestic ports.....	51
Entries of merchandise for duty.....	110
Entries of merchandise free of duty.....	22
Entries for warehouse	5
Entries for rewarehouse	3
Entries from warehouse for consumption.....	24
Entries for immediate transportation without appraisalment	4
Total number of entries of merchandise.....	168
Entries for consumption liquidated.....	190

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WIPING RAGS.

THE RAYCHESTER CO., 1448 Folsom St., S. F.
Sanitary Manufacturing Co., 2208 Folsom, S. F.

Collector of Customs Malcolm has prepared the following report of business transactions at the local Customs House for the month of April:

Entries for warehouse liquidated.....	18
Certificates of enrollment granted.....	2
Licenses for coasting trade granted.....	2
Documents to vessels issued.....	4
Value of exports—	
Domestic	\$255,614
Receipts from all sources—	
Duties on imports	\$31,117.81
Fines, penalties and forfeitures.....	38.60
Miscellaneous customs receipts	151.20
Storage, labor and cartage.....	27.50
Official fees	27.50

Total	\$31,343.86
Amount of refund and drawbacks paid.....	514.45

The British ships Colony and Manx King will return to this coast with full cargoes of cement from Antwerp. The Colony will proceed to San Francisco and the Manx King to San Diego, with the option in either or both cases of ordering them to Portland. The Manx King loaded wheat from Tacoma for Antwerp, while the Colony loaded nitrate from the West Coast for the same port.

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DETJEN-MENGEL CO., Incorporated

H. L. DETJEN, Manager

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Confectionery

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Estimates

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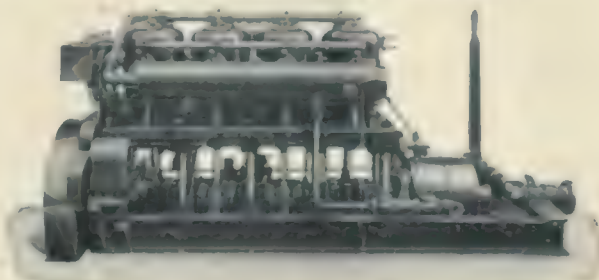
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PACIFIC MERCHANT MARINE

SATURDAY, JULY 3, 1909

VOL. II

NO. 13

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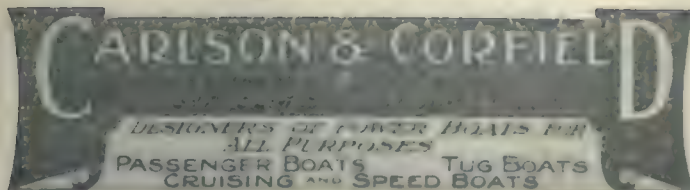
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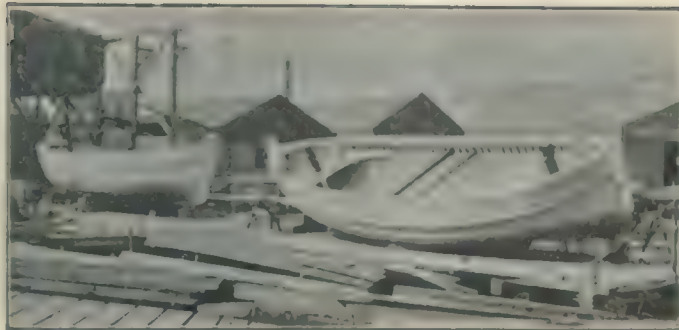
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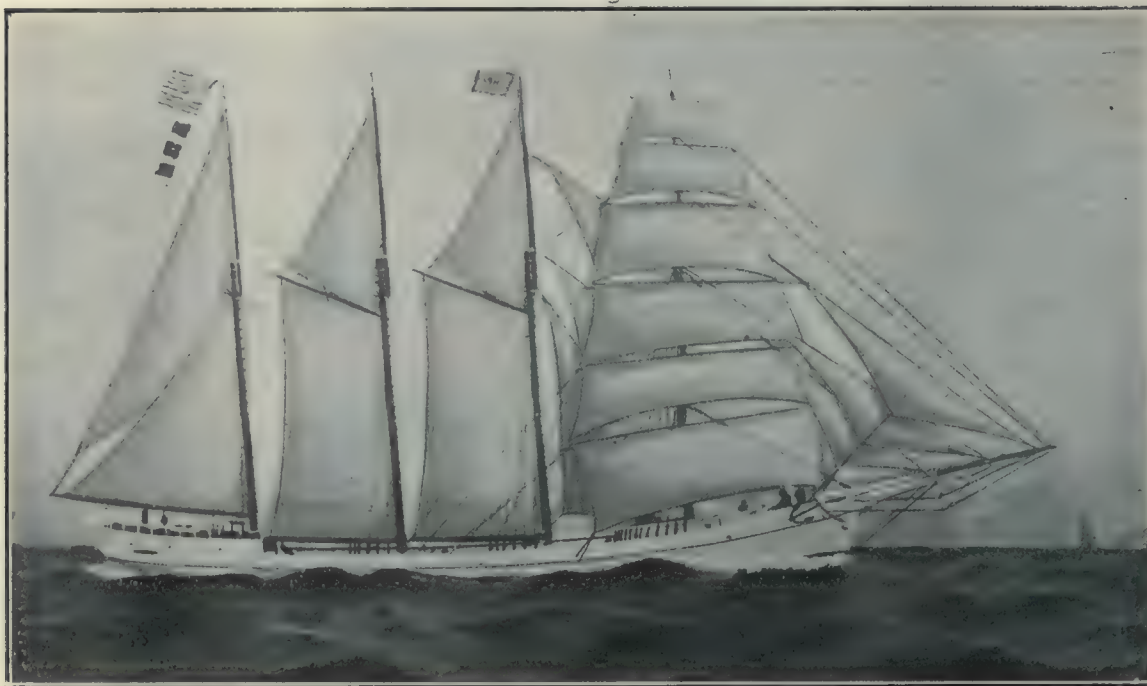
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Volume II

SATURDAY, JULY 3, 1909

Number 13

FIVE YEARS OF CANAL WORK.

Progress Made Under American Control Since May 4, 1904

I.

Construction and Engineering—Cost of Canal Construction.

The United States government formally took possession of all canal properties on the Isthmus of Panama, which it had purchased from the French Canal Company, on May 4, 1904. At that time the only work in progress on the Canal was in Culebra Cut where about 600 West Indian laborers were engaged, and a few side excavators and dump trains were in service. The work was continued with this force and equipment, but active canal construction did not begin until 1906.

It was perceived by the American Commission at the outset that the work divided itself naturally into two stages: First, that of preparation; and second, that of actual construction. The first covered a period of about two and a half years. All energies were devoted during that time to making the Isthmus healthy by thorough sanitation; to accumulating and organizing a working force and providing for it houses and a food supply; to assembling a plant with which to do the work of construction; to enlarging the existing railway system so as to make it adequate, and to establishing a system of civil government for the Zone.

There have been three Commissions in charge of Canal work. The first was in office from March 3, 1904, until April 3, 1905; the second was in office from April 3, 1905, till April 1, 1907, and the third, dating from April 1, 1907, is in office at the present time. There have been three Chief Engineers: John F. Wallace, who served from June 1, 1904, to June 28, 1905; John F. Stevens, July 1, 1905, to April 1, 1907, and Lieut.-Col. George W. Goethals, Corps of Engineers U. S. A., whose services began on April 1, 1907.

The question as to the type of canal to be constructed was decided in June, 1906, when an act was passed by Congress and approved by the President on June 29 of that year, decreeing the construction of a lock canal 85 feet above sea-level, with approaches at sea-level.

The plan of this Canal, with several changes which have since been ordered by the President and adopted by the Commission, provide:

A channel, 500 feet wide at sea level, will lead from deep water in Limon Bay to Gatun, a distance of 6.76 miles. At Gatun a dam 1 1-2 miles long and 115 feet high will impound the waters of the Chagres River in a lake, the normal level of which will be 85 feet above mean sea-level. A flight of three twin locks, each 1,000 feet long, 110 feet wide, and allowing for 41 1-3 feet of water over the sills, will raise vessels from sea-level to the lake, or lower them from the lake to the sea-level channel. From Gatun navigation will be through the lake in a channel from 1,000 feet to 500 feet wide for a distance of 23.59 miles, to Bas Obispo, where Culebra Cut begins. The channel through the Continental Divide, from Bas Obispo to Pedro Miguel, a distance of 8.11 miles, will be 300 feet wide, and the surface of the water will be at the

lake level. At Pedro Miguel vessels will be lowered from the 85-foot level to a small lake at 55 feet above sea-level, in twin locks of one flight. A channel 500 feet wide and 0.97 miles long will lead to Miraflores locks, where the descent to sea-level will be made in twin locks of two flights. The locks at Pedro Miguel and Miraflores will be of the same dimensions as those at Gatun. From Miraflores to deep water in Panama Bay, a distance of 8.31 miles, the channel will be 500 feet wide, and 45 feet deep at mean tide.

The total excavation from May 4 to December 31, 1904, was only 243,472 cubic yards; in the year 1905 it was only 1,799,227 cubic yards, and during 1906 it was only 4,948,497 cubic yards. There had been, therefore, excavated previous to January 1, 1907, only 7,000,000 cubic yards. Of the grand total of excavation to date, over 73,000,000 cubic yards, all except 7,000,000 cubic yards has been accomplished since January 1, 1907—two years and five months.

A total of 73,124,849 cubic yards had been taken out up to May 1, 1909, and it is estimated that there yet remain to be excavated 101,541,746 cubic yards. In the month of March, 1909, more material was excavated than during the first two years of work under American occupation. The rate at which the remainder will be done should be judged by the average for the year 1908, rather than by the average for the five years. Conditions as to equipment, labor, and experience will remain practically the same, until the completion of the Canal, as they were in 1908, but it will be more difficult to excavate in the lower levels of Culebra Cut, and for the dredges to take out the rock near the bottom of the Atlantic and Pacific entrances.

Culebra Cut and Lake Region.

All the construction work on the lake level is in the territory of the Central Division. It divides itself naturally into two parts—the Lake Region, and Culebra Cut. In what is referred to as the Lake Region, extending from Gatun to the beginning of Culebra Cut at Bas Obispo, a distance of 23 miles along the line of the Canal, the work consists of making a channel from 500 feet to 1,000 feet wide. The Canal follows in general the course of the Chagres River through this region and the work is chiefly in making small cuts through the peninsulas formed by the winding of the river, and cutting down small hills that rise above the 40-foot elevation in the course of the channel. Work was begun in August, 1907, and until December, 1908, was confined to steam shovel excavation at San Pablo, Caimito, and between Gorgona and Matachin. Since December, 1908, three shovels have been working between San Pablo and Tabernilla, and 69,722 cubic yards of hand excavation have been made near Bohio. The total amount of material taken from the prism in the Lake Region up to May 1, 1909, was 5,906,754 cubic yards and there remained to be removed 5,333,518 cubic yards. Of the amount yet to be excavated, about 4,500,000 cubic yards will probably be dredged. In addition to the excavation the work in the Lake Region includes clearing trees and vegetation from the channel, and the clearing of an anchorage basin immediately south of Gatun

Dam. In the last three months about 500 acres have been cleared.

At a point 31 miles from deep water in Limon Bay along the line of the Canal, the channel leaves the course of the Chagres River and runs through the hills of the Continental Divide. A cut nine miles long, 300 feet wide at bottom, with the bottom at 40 feet above sea-level, is being made through these hills. Work was begun on this project by the French in 1881. The new French company was at work there on May 4, 1904, and since that date the excavation has not ceased. The material excavated each year from May 4, 1904, has been as follows:

	Cubic Yards.
1904 from May 4.....	243,472
1905	914,254
1906	2,702,991
1907	9,177,130
1908	13,912,453
1909 to May 1	5,147,944
Total	32,098,244

Work in Culebra Cut was continued from May 4, 1904, with the equipment taken over from the French. Steam shovels had been used by the French, but they had been

rains of eight months of the year, mainly because a drainage system had been perfected, and partly because experience made it possible to dispose of the spoil almost as rapidly as in dry weather.

A diagram on the next page shows the amount of work done in the Lake Region and Culebra Cut, the territory of the Central Division up to May 1, 1909, and the amount yet to be done.

Locks and Dams.

The plan of Canal as decreed in June, 1906, and outlined above, included dams and locks near the Atlantic and Pacific entrances. On the Atlantic side the dam is at Gatun, nearly 8 miles from deep water in Limon Bay, and the locks are located in a hill against which the east end of the dam abuts. Work on the dam was begun in 1907. Rocks toes or walls between which the material for the dam will be pumped have been completed over half the width of the valley. On December 24, 1908, a dredge began pumping clayey material into the dam. Over 20,000,000 cubic yards will be required to complete the fill. The dam will be 1 1-2 miles long, 115 feet high, and 1,200 feet wide at bottom between the toes. A spillway to control the amount of water in the lake is in process of construction near the center of the dam. Most



LAS CASCADAS

When the Americans first came there was only one tract at this point. Now there are three and all the buildings on the left was erected by the I. C. C.

abandoned, and the machine most depended upon was the side excavator. The first modern steam shovel arrived in November, 1904, and it was followed by others. In June, 1905, the last of the excavators was taken from the work. Improved equipment and a thorough system of hauling spoil from the Cut and landing it on the dumps are largely responsible for the unexpected progress made on this part of the work. In January, 1907, the efficiency of the new system first became marked. From that time there was a general increase in the monthly excavation until the million-yard point was reached in December, 1907. With the exception of May, 1908, there has been no month since 1907 when the excavation from Culebra Cut has not been at least one million cubic yards. The highest record was made in March of this year when over a million and a half cubic yards were excavated, a greater amount than was taken out of the Cut in the first twenty-two months of American occupation. The average monthly excavation in 1908 was 1,159,371 cubic yards. The monthly excavation was not affected appreciably by the heavy

of the excavation in the spillway is completed and concrete is being laid.

Building the locks at Gatun involves an excavation of 5,139,304 cubic yards, and the laying of 2,095,000 cubic yards of concrete.

There will be three twin locks, each 1,000 feet long, 110 feet wide, and with 41 1-3 feet of water over the sills. Excavation for the locks was begun in October, 1906. In the chamber of the upper or south locks it is almost completed, while it is in progress in the middle and lower or north chambers. Of the total to be excavated 3,435,932 cubic yards had been taken out up to May 1, 1909.

Sand from pits at Nombre de Dios, on the Caribbean Sea, about 20 miles east of Colon, and rock quarried and crushed at Porto Bello, near Nombre de Dios, are being delivered at Gatun, where the plant for handling materials, mixing, and laying concrete is nearing completion. The work of laying concrete will probably begin early in August.

—The Canal Record

CHEAPENING THE COST OF CARRYING LUMBER.

By DAVID W. DICKIE, San Francisco.

In the April issue of the Marine Review, published in Cleveland, Ohio, an article appeared entitled, "The Pacific Coast Lumber carrying fleet," in which the advantages of the steel steam schooner were set forth in all their glory, but not quite accurately.

The writer found upon investigation that the latter statement, while he believed it to be true, was difficult to prove on account of the great variations in the conditions under which the ships operate, and like the Scotch jury is obliged to bring in a verdict of guilty, but not proven.

The principal fault lies probably in omitting some of the items of the cost. Another is the divisor used for the steel vessel mentioned. The writer has tried as far as possible in his power to get something in for each item, and even though the amount may be wrong, he hopes the general average will approximate the truth, trusting the whole will make a readable article.

The "Cleveland" article gives the annual expenses of the three types of vessels carrying lumber on the Pacific Ocean as follows—a slight correction made for the fuel actually burned, which does not alter the result:

Table 1.

Annual expenses of a typical four-masted sailing schooner of 1,000,000 feet, board measure, lumber capacity, making six round voyages per year between Puget Sound and San Pedro, Cal. First cost of vessel, \$70,000. (From The Marine Review):

FIXED CHARGES:

Depreciation, 5 per cent	\$ 3,500
Insurance, 6 per cent	4,200
Interest on investment, 6 per cent.....	4,200
Total fixed charges	\$11,900—\$11,900

OPERATING EXPENSES:

Stevedoring, 6,000,000 B. M. @ 80c per M.....	\$ 4,800
Wages per month:	
Captain	\$125
First Mate	70
Second Mate	60
Cook	60
Boy	30
Six sailors	300
Total	\$645x12= 7,740
Food, 11 men, 360 days @ 40c per man per day	1,584
Tow, pilot charges, ship chandlery, etc.....	11,676

Total operating expenses.....	\$25,800—\$25,800
Grand total	\$37,700
Cost per thousand feet, board measure, \$6.29.	

Table No. 2.

Annual expense of a typical wood steam schooner of 1,000,000 feet, board measure, making 12 round voyages per year from Puget Sound to San Pedro, Cal. First cost of vessel, \$130,000. (From The Marine Review):

FIXED CHARGES.

Depreciation, 5% on hull value.....	\$50,000—\$ 2,500
Depreciation, 7% on machinery value	
of	80,000— 5,600
Insurance, 6½% on total value of.....	130,000— 8,450
Interest on the investment, 6%.....	130,000— 7,800
Total Fixed Charges.....	\$24,350—\$24,350

OPERATING EXPENSES

Stevedoring 1,200,000 feet at 80c per M.....	\$ 9,600
Wages per month:	
Captain	\$ 125
First Mate	75
Second Mate	60
Watchman	50
Chief Engineer	125
Two Assistant Engineers	140
Three Firemen	150
Cook	60
Assistant Cook	40
Two boys	60
Five sailors	250
Total	\$1,135x12= 1,620

Food, 20 men, 360 days, 40c per man, per day....	2,880
For 12 trips for 14 days each—	
Fuel, 168 days' running at 10 tons per day.	
1,680 tons @ \$4.50	7,560
Fuel, 192 days in port at 4 tons per day, 768 tons, at \$4.50	3,456
Engineers' supplies, oil, waste, etc	1,000
Total operating expenses.....	\$38,116—\$38,116
Grand total	\$62,466
Add 50c per M. additional for loading steam schooner over wood sailing vessels	6,000
Grand total	\$68,466
Cost per 1,000 feet of lumber carried, \$5.70.	

Table No. 3.

Annual expenses of a typical steel steam schooner of 1,500,000 feet, board measure, capacity, making 13 round voyages between Puget Sound and San Pedro, Cal. First cost of vessel \$180,000. (From The Marine Review):

FIXED CHARGES:

Depreciation, 5% on a hull value of. \$ 75,000—	\$ 3,750
Depreciation, 7% on machinery value of 105,000—	7,350
Insurance, 6½% on total value of....	180,000— 11,700
Interest, 6% on total investment....	180,000— 10,800
Total charges	\$33,600 \$33,600

OPERATING EXPENSES.

Stevedoring 1,950,000 ft. B. M., @ 80c per M. \$15,600	
Wages per month:	
Master	\$ 130
First Mate	80
Second Mate	60
Watchman	50
Chief Engineer	125
Two Assistant Engineers.....	140
Three Firemen	150
Cook	60
Assistant Cook	40
Two boys	60
Seven sailors	350
Total	\$1,245x12= 14,940
Food for 31 men @ 40c per man per day, 360 days	8,024
Fuel, 13 trips of 14 days each, 182 days' running at 15 tons, 2,730 tons. @ \$4.50.....	12,285
Fuel for 178 days in port at 5 tons per day, 890 tons at \$4.50	4,000
Engineers' supplies, oil, waste, etc.....	2,000
Total operating expenses	\$51,854—\$51,854
Add 50c per M. feet additional for loading steam over sailing schooner	9,750
Grand Total	\$95,204
Cost per M feet of lumber carried, \$4.89	

[NOTE—This vessel is taken as making 13 trips, in comparison with the wood vessel making 12 trips. The time given on each trip is the same—14 days. Why the author gives the steel vessel shorter time in port, when she has to discharge 500,000 feet more lumber with the same cargo gear is not quite clear. If we take the steel steamer as making 12 trips the cost per M. is \$5.18 on the steel vessel, as against \$5.70 on the wood vessel.]

The writer differs a little from the above in the quantities allowed for the hull and machinery, which makes very little difference in the result.

We do find, however, considerable differences in the stevedoring that requires analyzing. This item varied in the writer's researches from .32 a M. feet with fair dispatch to .60 a M. with poor dispatch. We found none at .80 a M. feet. The .60 a M. belonged to a vessel that had several trips where the lumber had to be peddled. Imagine a steamer carrying 900,000 feet having to leave the dock half discharged, steaming seven miles to discharge 150,000 feet and so on until the cargo was finally all out, and it is easy to see the reason for the variation in the stevedoring.

The following is the estimated cost of operating a wood steam schooner of 1,000,000 feet and 1,500,000 feet, board measure, capacity, respectively, which it will be seen compares very favorably with the steel vessel based on the items the previous articles have in, and also based on as many of the items as the writer could get.

Note that the writer figures on 15 round voyages to San Pedro from Puget Sound, which conclusion was arrived at after balancing the averages of the higher power schooners:

Table No. 4.

Annual expenses of wood steam schooner of 1,000,000 feet, board measure, capacity, making 15 round voyages per year between Puget Sound and San Pedro. First cost of vessel, \$130,000. Two sets of cargo gear.

FIXED CHARGES.

Depreciation, 5% on a hull value of..	\$ 60,000—	\$ 3,000
Depreciation, 7% on a machinery value of	70,000—	4,900
Insurance, 7% total value of.....	130,000—	9,100
Interest, 6% on a total value of.....	130,000—	7,800

Fixed charges\$24,800—\$24,800

OPERATING EXPENSES:

Stevedoring 15,000,000 ft., B. M., 60c per M....\$ 9,000
Wages per month:

Captain	\$ 175
First Mate	100
Second Mate	80
Watchman	50
Chief Engineer	140
Two Assistant Engineers.....	160
Three Firemen	165
Cook	70
Assistant Cook	35
Two boys	70
Nine sailors	450
Total	\$1,515x12=\$18,180

Food, 23 men, 360 days, at 70c per day.....	5,796
Fuel, 180 days' running, at 70 bbls. per day @ \$1	12,600
Fuel, 180 days in port @ 25 bbls. per day @ \$1..	4,500
Engineers' supplies, oil, waste, etc.....	1,200

Total\$76,076—\$76,076

Cost per M. feet carried, \$5.07, taking the previous writer's items only.

Ship chandlery, boatswain's supplies.....	\$ 1,950
Fresh water	300
Drydocking and painting	700
Port charges, wharfage, etc.....	1,300
Taxes	700
Incidentals	1,000

Grand Total\$82,026

This makes the cost per M. feet carried \$5.47.

The above cost makes no allowance for accidents to men, damage to ship not covered by insurance, commissions, brokerage, etc., which will add, say \$5,500, but which we do not include on the basis that the managing owner controls a mill and a fair outlet for the produce.

Table No. 5.

Annual expenses of a wood steam schooner of 1,500,000 feet, board measure, capacity, making 15 round voyages per year between Puget Sound and San Pedro. First cost of vessel, \$178,000. Three sets of cargo gear.

FIXED CHARGES:

Depreciation, 5% on a hull value of..	\$100,000—	\$ 5,000
Depreciation, 7% on machinery value of	78,000—	5,640
Insurance, 7% on a total value of....	178,000—	12,460
Interest, 6% on a total value of.....	178,000—	10,680

Total fixed charges\$33,600—\$33,600

Stevedoring 22,500,000 ft., B. M. @ 60c per M....\$13,500
Wages per month:

Captain	\$ 175
First Mate	100
Second Mate	80
Chief Engineer	140
Two Assistant Engineers.....	180
Three Firemen	165
Cook	70
Assistant Cook	35
Two boys	70
Ten sailors	500

Total	\$1,565x12=\$18,780
Food for 24 men at 70c for 300 days.....	6,048
Fuel, 180 days' running at 94 bbls. @ \$1 a bbl..	16,920
Fuel, 180 days in port at 34 bbls. @ \$1 a bbl..	6,120
Engineers' supplies, oil, waste, etc.....	1,350

Grand Total\$96,318

Cost per M. feet carried, \$4.25, taking in the items of the previous article.

Ship chandlery, boatswain's supplies.....	\$ 2,000
Fresh water	320
Drydocking and Painting	1,130
Port charges, wharfage	1,800
Taxes	1,100
Incidentals	1,100

Grand Total\$103,768

Cost per M. feet carried, \$4.61.

The writer finds the wage scale differs from The Marine Review's article, and gives it as he finds it, noting, of course, that every vessel varies in this respect. He also finds that larger crews are carried.

None of the steamers seem to be feeding the men at 40c a day per man, as given, the average seeming to be about 70c per day. One firm, buying in large quantities and reirigerating, has it down to 51c, and 50c seems to be a fair average for offshore vessels where salt meat and canned vegetables are used and the waste is cut to a minimum.

In the body of The Marine Review article the author says, "The outfit comprises a single screw vessel, with a 600 h. p. triple expansion engine, with a surface condenser and a Scotch boiler carrying 200 pounds of steam pressure" (for the 100,000 feet, board measure, carrying capacity).

It will take from 2 to 2½" of coal that can be obtained at Seattle for \$4.50 a ton (oil is generally used elsewhere) to guarantee steam for 1 h. p. Six hundred h. p. @ 2 pounds for 24 hour makes 13 tons and at 2¼ pounds 16 tons, instead of the 10 tons given in the fuel item in the article.

To show that any gain the steel vessel has over the wood vessel is due to size and size alone, the writer gives the same data for a 2,300,000 feet, board measure, capacity, side tank steel steam schooner, outline of which accompanies this article.

Note that the cost drops as follows:

1,000,000 feet, board measure, capacity.....	\$5.47 per M
1,500,000 feet, board measure, capacity.....	4.61 per M
2,300,000 feet, board measure, capacity, steel.....	4.22 per M

which is what might be expected on account of the size. Note that if interest, depreciation, insurance are omitted the freight cost per M. for the 2,300,000 vessel drops to \$2.27 per thousand feet of lumber carried.

Table No. 6.

Estimated annual expenses of special side tank steam schooner of 2,300,000 feet, board measure, capacity, making 15 round voyages per year between Puget Sound and San Pedro. First cost of vessel, \$300,000. Four sets of cargo gear.

FIXED CHARGES:

Depreciation, 5% on hull value of	\$160,000—	\$ 8,000
Depreciation, 7% on Machinery value of 140,000—		9,800
Insurance, 7% on total value of.....	300,000—	21,000
Interest, 6% on total value of.....	300,000—	18,000

Total fixed charges.....\$56,800—\$56,800

OPERATING EXPENSES:

Stevedoring 34,500,000 feet, board measure, at 60c per M.\$20,700

Wages per month:

Captain	\$ 175
First Mate	100
Second Mate	90
Third Mate	80
Watchman	50
Chief Engineer	140
Two Assistant Engineers	180
Three Firemen	165
Cook	70
Assistant Cook	35
Two boys	70
Twelve sailors	600

Total	\$1,755x12=\$21,060
Food, 27 men, 360 days, at 70c a day.....	6,800
Fuel, 180 days' running, at 117 bbls. a day at \$1 a bbl.	21,600
Fuel, 180 days in port at 42 bbls. a day at \$1 a bbl	7,560
Engineers' supplies, oil, waste, etc.....	1,700
Ship chandlery, boatswain's supplies.....	2,000
Fresh water	330
Drydocking and painting	1,560
Port charges, wharfage	2,200
Taxes	1,600
Incidentals	1,100

Grand Total\$145,010

Cost per 1,000 feet of lumber carried, \$4.20.

Pacific Merchant Marine

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Address All Communications to the Pacific Merchant Marine

Intimation comes from Washington that the government is not disposed to establish a line of steamers on the Pacific Coast to Panama similar to the Federal line now operating between New York and Colon. The claim is made that the Atlantic line is being operated at a loss to the government, and is maintained chiefly to regulate freight rates to Panama and preventing them from reaching prohibitive figures. The statement, if bona fide, is of the genuine homespun quality from the spinning wheel that wove the United States flag, and quite beyond the possibility of being produced by the same mechanism that removed the stars and stripes from the high seas. The intimation is qualified by government preference to private ownership of the Pacific line.

The qualification is apparently the one jewel which adorns the government's preference, yet one which consistency would scorn to wear. Pacific Coast merchants are advised and importuned to establish a line of steamers on the west coast to operate in conjunction with a Federal line on the Atlantic operating at a loss, and also the privilege of reading the prepared annual reports of the Pacific Mail Steamship Company for the year ending December 31, 1908, in which is shown net earnings of \$12,207 for the year, and in which the item of \$351,892 depreciation has been neglected in the main, to more fully impress the public that the total loss for the year amounted to \$339,685 as against \$428,817 for the year 1907. The Southern Pacific Railroad is reputed to own \$10,010,000 of the \$20,000,000 outstanding stock of the Pacific Mail Steamship Co., acquired in 1900. In 1899-1900 the Pacific Mail paid a dividend of three per cent, since which no dividends have been distributed. In 1901-1902 the deficit amounted to \$307,935.

Granting that the figures quoted are correct, is it reasonable to assume that the Pacific Mail suffered a loss of \$3,229,308 figured as a mean for the nine years of Southern Pacific control? Recent developments and testimony in the merger case are convincing proof of the absurdity of the figures. Southern Pacific ferry service

between San Francisco and Oakland figured on the same basis as the above would be made to show a greater loss. We presumed to state in a previous article that withdrawal of the Panama line by the Pacific Mail may possibly prove a boomerang for Pacific Coast merchants. Implying by the statement that railroad influence would not dominate the products of the Pacific Coast, and give preference to goods and materials born in the cradle of railroad transportation. The implication magnifies by investigation, and has revealed to the merchant masses conditions heretofore considered trivial and of little consequence when applied to Pacific Coast commerce as a whole. Freight shipped from New York is landed at Balboa (formerly La Boca), the Pacific side of the Isthmus in ten days. The Pacific Mail Company consumes from 30 to 45 days in transporting the same goods from Balboa to San Francisco. Eastbound freight from Pacific Coast seaboard cities via the Isthmus of Panama are subject to still greater unjust discrimination. Mail matter sent from this office to Balboa and marked via New York has reached its destination and answer returned over the same routing was received at our office in less time than similar matter has been delivered at Balboa by the Pacific Mail steamers.

The benefits of an Isthmian Canal have appealed to the wise, unwise and otherwise. Its construction could affect two classes of the community: First, those who owned the railroads and whose interests were confined to the mainland of the United States, and, secondly, the merchant who sought an outlet for his goods in all the markets of the world at home and abroad, the matter of transportation by land or sea being of minor consequence just so long as the goods were transported and equality of rates maintained. One class condemned the canal, the other commended it.

The expansion of railroads in the United States has contributed largely towards the internal industrial development thereof, but fails dismally as a redeeming feature of American commerce. From the discovery of gold in California to the present time, Pacific Coast resources have increased at a rapid rate. The Panama Canal offers to facilitate this growth, and relief from the railroad influence, which in desperation, and as a means to an end, did or caused to be created a maze of legislation, the plasticity and intricacy of which is demonstrated in every legal action for or against railroad interests, the recent case of the City of Spokane, Wash., et al, vs. Northern Pacific Railway Co., et al, being a vivid illustration of the above statement. Legislation good or bad offered the only possible means of protection to railroad interests, and constitutes recourse on lines of less resistance than any other possible method. Every railroad case tried in the courts of the United States has been made the stepping stone for the perfection of railroad laws and regulations. Merchant interests have been forced to the offensive, while railroads have assumed the defensive side of every action.

May it not be possible that a multiplicity of dangers to American commerce on the high seas are contained in government ownership of a line of merchant vessels on the Pacific? Should this or any other government usurp the rights and privileges of its own citizens or subjects? Would railroad interests stop to consider the result if the question was left to a direct vote of the people? Do the railroads, voters or people honestly believe that the loss as stated occurred to the Southern Pacific Company, owners of and operators of the Pacific Mail S. S. Co.?

Federal ownership of merchant vessels may offer some relief to merchants on the Pacific Coast, but the senti-

ment expressed at the beginning of this article, and annual report of the Pacific Mail, is not conducive to the adoption of this policy. The Schwerin code relating to the traffic of the Panama Railroad "that the route was to be opened to all comers on an equal through billing basis, and all lines would be compelled to publish their itinerary in advance and maintain a regular steamship service," affords food for thought when taken jointly with the fact that the Pacific Mail has been the only line to the Isthmus for a number of years and whose agreement shall soon expire, and the canal thrown open to the ocean traffic of the world, the latter of whom are not compelled to ship transcontinental freight via the Southern Pacific Co.

Returning to first principles—the clipper ship—is convincing evidence of engaging in ocean traffic on the Pacific with profit, and the enterprise, ability and efficient service rendered by those engaged therein should be patronized and encouraged, but not handicapped by government ownership nor dictated by railroad interests. Natural conditions require that every seaport city on the Pacific Coast will receive their just share of the benefits of an Isthmian Canal. Some trade now held by the different ports will be diverted, changing somewhat the hopes and ambitions of those now engaged in the struggle for commercial supremacy, but ultimately redounding to the decided improvement of all. The Pacific Mail may divert its local and foreign traffic from San Francisco to some other port on the Pacific. But Federal ownership is but temporary relief for the great amount of freight to be handled in all ports on the Pacific, from San Diego to Puget Sound, and sufficient to attract the investment of capital to a greater extent than heretofore in the history of Pacific Coast commerce. Commercial conditions on the Pacific have changed rapidly in the past five years—will change much more rapidly in the next five. Western Pacific, Santa Fe and other western roads could not afford to lose their first share of the traffic and freight. Open, clean-cut competition for freight via the Panama Railroad should be hailed with pleasure on the Pacific Coast; the greater that conditions, rules, regulations and laws surrounding the competition is reduced to a minimum, to the same extent shall the Pacific Coast profit.

NOTES.

President Taft has inaugurated a new policy in the management of the navy yards of the country by issuing an order that ships shall not come in fleets as formerly, thereby overcrowding the yards, but shall take turns in the yards.

The yards have been greatly overcrowded with work when a large fleet came for docking and repairs and upon the vessels leaving the yard authorities were compelled to reduce the force considerably. The new arrangement will insure the steady employment of a normal crew of skilled mechanics.

The naval retirement board, consisting of five rear admirals, have decided that eighteen naval officers will be selected in accordance with the law for compulsory retirement this fiscal year.

The new car demurrage ruling which is given below in full went into effect on June 19th.

Rule 11—The right reserved to allow freight to remain in cars subject to demurrage or to unload at the expense of consignee and thereafter hold subject to storage or place the goods in any suitable warehouse subject to established charges at said warehouse, at owner's insurance and other risk.

Rule 12—Demurrage accruing under the foregoing rules will be charged at the rate of \$6 per car per day, or fraction of a day, except that on tank cars \$3 per day will be charged for the first day and \$6 per day will be charged thereafter.

The California reciprocal demurrage law went into effect recently. The new law applies only to such cars as are supplied or used for the carriage of freight between points in the state of California and subject to the regulations of the railroad commission of California. The law is operative only to cars applied for, furnished and billed on and after June 19, 1909.

The time allowed carriers to furnish cars for loading is as follows: Orders for less than ten cars to be filled in five days; for ten cars and less than fifty, to be filled in ten days; for fifty cars or more, to be filled in fifteen days, and orders for cars to load perishable freight to be filled in two days.

Application for cars is to be made as follows:

The law provides that penalty and damages against the carrier for failure to furnish cars within the time specified may be recovered only "when application for cars is made in writing to a superintendent, agent or other person in charge of transportation at the point cars are desired for loading, and that such application shall state the number of cars desired; the kind of freight to be shipped, the point of destination, the time and place at which they are desired, and that the applicant shall, at the time of applying for cars deposit with the agent of the carrier one-fourth of the amount of the freight charges for the use of cars, if such agent shall require such deposit."

In all cases where cars are applied for in the manner above provided and such application is not accompanied by a cash deposit of one-fourth of the freight charges at the minimum car load rate for each car, such application must be immediately rejected and returned to the applicant with a demand for the amount of deposit, unless such applicant shall execute a release.

When applications are accompanied by the amount of deposit required the agent must immediately notify the superintendent, giving the time and date of receipt of such applications and number and kind of cars called for when wanted, and prospective loading and destination thereof, and when furnished must record on application the initial and numbers of cars and date and time each is furnished, and carefully file for future reference.

France has come to the realization, through the report of the parliamentary commission which has been investigating the naval scandals, that her fleet is in a deplorable condition after expending \$700,000,000 on it since 1899.

Many of the flagrant defects are due to the builders and one in particular is cited, viz., equipping the Patrie, the Republique and other ships of this class with secondary guns of 1885 model instead of 1902 model as the specification required. The report states that through inefficiency French naval vessels cost from 25 to 30 per cent more than German or English vessels.

LOCAL NOTES.

Captain L. Young of the Mare Island Navy Yard has filed charges with the Board of City Trustees of Vallejo against the master of the schooner *Amelia* for mooring the vessel in a dangerous position in the navy yard channel, which is in violation of the Federal laws.

On May 14th, while the *Amelia* lay in the channel the navy yard tug *Dart* collided with her, which resulted in the killing of a Chinese and badly maiming another man's hand.

The U. S. customs officials, while searching the steamer *Manchuria* found and seized a case of opium manifested to Ancon, Canal Zone, as being in transit through the United States.

If capitalists of Long Beach, Cal., can secure \$35,000 the construction of a steel steamer to cost \$195,000, at the Craig yards, is assured. Capitalists of San Francisco have subscribed \$100,000 towards the enterprise, and \$60,000 can be raised as a loan on the boat.

The general officers of the company will be in San Francisco, but the headquarters will be at Long Beach. A steamer, 260 feet long, accommodations for 260 passengers and a freight capacity of 2,500 tons, will be built if the amount desired is raised.

Considerable anxiety is being felt in shipping circles for the safety of the British bark *Roderick Castle*. The vessel cleared from the Columbia river, bound for Queens-town, Ireland, on December 6, 1908, and since clearing has never been spoken. She was an old vessel, but carried a valuable grain cargo.

Over 500 shares of the California Navigation & Improvement Company, held by the Sperry Flour Company, were transferred to W. M. Metson, an attorney of San Francisco, who represents unknown parties, at the annual meeting, June 10th. Attorney Arthur L. Sevinsky resigned as attorney for the corporation, and Dewitt Clary of the firm of Loutitt & Clay was elected. Ward Smith resigned as a director of the company, and F. D. Cobb was elected.

Bates & Chesebrough have placed the ship *William P. Frye* on berth at New York to load cargo for San Francisco.

City Wharfinger F. R. Stark of Napa submitted, at the last meeting of the City Council, an annual report showing the tonnage of Napa river for the year ending December 31, 1908. The imports and exports carried by boats were as liquors and beers, 19,951; fruits and vegetables, 59,945; cement, lime and sand, 3,779; hides, tallow, etc., 1,186; mineral waters, 1,067; gravel, 161,968; livestock, 1,264; lumber, 23,817; hay, grain and feed, 10,233; grand total of all river imports and exports, 254,170. In addition the report estimates the tonnage hauled in and out of this city by railroads during the year at 50,000 tons, and the output of the cement works at 200,000 tons, thus giving the river credit for an approximate tonnage of 600,000 tons.

The river steamer *Sonoma Valley*, owned by the River, Oil and Transportation Company of Antioch, was completely destroyed by fire on June 22d. The boat carried at the time a cargo of benzine and gasoline, and the loss is about \$10,000.

Through the efforts of the Merchants' Exchange of San Francisco, the merchants of that city have appropriated \$1,000 to the National Rivers and Harbors Congress, to enable them to secure a Government appropriation of \$50,000,000 yearly for a period of ten years for the development of the waterways of the country.

At the meeting held at the Merchants' Exchange to discuss the importance to California of developing its highways, John A. Fox, special director of the National Rivers and Harbors Congress gave the following address:

"My mission to San Francisco is to secure the merchants' co-operation in a fight to secure an annual congressional appropriation for the development of the rivers and harbors. San Francisco, although a natural harbor city, will reap from the work as great a benefit as any part of the country. If the San Joaquin and Sacramento rivers are improved for serviceable navigation an enormous amount of freight that cannot be moved because of the cost of railway transportation will be brought out

from the interior and shipped out of the port of San Francisco.

"When the Panama Canal is completed San Francisco will be in close touch by water with Pittsburg, Cincinnati and other inland Eastern cities. Foreign countries, such as Japan, England, France, Holland and Chile are already making harbor improvements to handle the increase in commerce, and if the United States does not wake up and improve her waterway she will find that the canal has been dug for the benefit of foreign countries."

The date of sailing for the United States army transport *Thomas* has been changed from July 5th to July 6th. This change will allow the transport to remain in port during the Fourth of July celebrations.

The Pacific Mail Steamship Company's freighter *Aztec* arrived June 25th from Ancon, via ports of Mexico and Central America. The steamer had a cargo of 5,000 tons measurement, of which 3,000 tons consists of Eastern freight received by way of the Panama Railroad.

Up until the time of the wreck of the steamer *Indiana* the *Aztec* was engaged in the coffee trade between Central and South American ports, but on the trip just completed she was taking the place of the *Indiana*. She will lay up indefinitely upon discharging her cargo.

The wrecked Standard Oil barge No. 91 has been raised and will be towed to San Francisco Bay to be repaired by the Union Iron Works. A few thousand dollars will place the barge into commission again.

The new fireproof pier No. 40, which has been in course of construction for several months, will be taken possession of by the Pacific Mail Steamship Company, who has leased it from the Harbor Commission. The steamers of the Portland and the Panama service will occupy the new pier, and the Spear street wharf will be abandoned.

The United Wireless Telegraph Company has commenced suit against the Marine Transmission Company and Pacific Coast Steamship Company in the United States Circuit Court to restrain respondents from using certain appliances in wireless telegraphy, to which the complainant holds the exclusive right to use.

Several hundred influential Chinese merchants of Hongkong interested in American trade have decided to boycott the Pacific Mail Steamship Company for maltreating Chinese passengers. They embarked for America at Hongkong, but were put off at Kobe because they were suspected of having trachoma, although having satisfactorily passed the examination at Hongkong. Their fare has not as yet been refunded.

At the meeting the speakers deplored the alleged fact that American steamers should maltreat Chinese passengers at a time when efforts are being made to establish strong commercial reciprocity.

The boycott will be continued until such time as the Mail company makes amends and guarantees proper consideration for passengers.

The United States mine planter, Col. George Armistead, will make an effort to locate the steamer *Rio de Janeiro*, which went to the bottom of the Golden Gate Feb. 22, 1901, with 121 people and \$200,000 of treasure.

In the case of the libel of *Societe Nouvelle D'Armenet*, owner of the *Santa Rita*, Judge De Haven of the United States District Court dismissed the suit.

Suit had been brought to recover alleged damages from fire caused by inflammable oil discharged on the waters of San Francisco Bay by the *Santa Rita*. The vessels were moored at Long Wharf, Oakland, at the time of the fire. Judge De Haven held that while the act of the *Santa Rita* made the fire possible, she was not instrumental in setting the fire.

United States District Judge De Haven rendered a decision in favor of the libellant in the case of Moore & Scott Iron Works against the steamer Kilburn. The suit was for cost of material furnished for repairs and supplies amounting to \$1,427.

The prospects for a heavy shipping year on the Sacramento river are excellent, and all steamers in that service are loaded to capacity. Fruit shipping is not at its height as yet, but will be well under way in two or three weeks. Considerable canned goods, hardware and farm implements are being shipped.

Proposed harbor and waterfront improvements at Oakland are being delayed because of the disputed ownership of lands at the foot of Ninth street. The city claims the land under the Starton patent, and the Southern Pacific Railroad Company as private property.

Deeds have been filed in the office of the Oakland Recorder which convey the ship building plant and lands of W. A. Boole & Son to the Moore & Scott Ship and Dock Company of San Francisco, the consideration involved being \$300,000.

Bonds to the amount of \$300,000 have been issued by the new purchasers. A deed and two mortgages are held by the Mercantile Trust Company.

It is understood that this purchase by the Moore & Scott firm indicates a step toward the consummation of plans to establish a big plant on this side of the bay in the shipbuilding line. The Boole holdings on the estuary include ample acreage and several hundred feet of water front. There is plenty of room for a large shipbuilding plant, dry docks and the like. There is already a submarine railway capable of handling coasting vessels.

The coffee trader Costa Rica arrived in port June 23d, after an absence of six months. Captain Wry had charge of the steamer when leaving this port, but was taken sick and First Officer Holland of the Panang liner San Juan was transferred to her command. She will lay up to be thoroughly overhauled.

The American-Hawaiian Steamship Company has chartered the steamer Falcon, and she will operate between San Francisco and Portland in place of the steamer Riverside. The Riverside will operate between San Diego and Salina Cruz.

The American schooner David Evans, well known in this port, was reported putting into Sydney in stress of weather. The Evans is a vessel of 748 tons, in command of Captain Seal. She loaded at Hastings Mill, B. C., and sailed for Adelaide with lumber for J. W. McNear of San Francisco on March 3d. The damage to her is not known, and she will be surveyed before proceeding.

NORTHERN COAST NOTES.

Seattle.

A bid of \$3,300 was offered for the old United States collier Zafiro, which is now lying at the Puget Sound Navy Yard. It is expected that the bid will be accepted by the Government, and the local concern which offered the bid will break the craft up for junk.

There is a shortage of about 600 skilled mechanics at the Puget Sound Navy Yard since the arrival of four cruisers of the Pacific squadron for miscellaneous repairs and the extensive repairs now under way on the battleship Oregon. The 1,300 men regularly employed were inadequate. Plans are being prepared for the new marine barracks and marine officers quarters, to be erected at the west end of the navy yard at a cost of \$200,000. A new storehouse and freight pier will be constructed in

the near future at a cost of \$360,000. Work on the naval hospital, which will cost \$50,000 to construct, is well under way.

The Alaska Commercial Company has recently acquired the S. B. Matthews, a sternwheeler, from the Alaska Packers' Association, and she will operate on the Susitna river in conjunction with the company's steamer Alice in towing barges.

A plea of guilty for violating the exclusion act has been entered by Chin Jow, store keeper of the Great Northern liner Minnesota, who had charge of ten smuggled coolies. If the coolies were landed safely Jow was to receive \$300 a piece for them.

Compared with the imports of the previous month, the foreign shipments to the district of Puget Sound in May show a tremendous increase, according to Collector of Customs Frederick C. Harper's report, which was made public. Last month the foreign imports reached a value of \$3,015,957, while in April this year the foreign business amounted to only \$1,639,957.

Seattle's lead over other cities in this district is so far that there is no comparison. During May Seattle imported goods from foreign countries to the amount of \$2,129,636, while Tacoma's business reached the small total of \$476,429.

Exports Fall Off.

Exports from the Puget Sound district continue to show a falling off. April's business was valued at \$1,700,841, and was considered a big slump. May fell far below this figure, totaling only \$1,245,674. Of this amount, Seattle is credited with \$505,690. Tacoma is the Queen City's nearest rival, the business of that port reaching \$246,320.

In the matter of customs collections, Seattle is far in the lead, with \$99,900.48, while Tacoma is the nearest with \$12,868.

Alaska exports amounted to \$899,296, which is a heavy falling off from April, the shipments during which month totaled \$1,336,660. During April, however, record breaking shipments of iron and steel manufactures were sent to the North, and this may account for the handsome total in that month.

Raw silk formed the principal item in the imports, the shipments of that product being valued at \$2,056,444, and consisted of 620,893 pounds. Copper ore, matte and bars were valued at \$238,401.

Lumber shipments formed the principal part of the exports, there being shipped from the district 21,498,000 feet, valued at \$260,093. Wheat flour shipments reached a value of \$206,670.

The Pacific Coast steamer City of Seattle left port June 18th, being the first excursion steamer sent out this summer. The steamer will call at the usual ports, returning via Taku and Windom glaciers, Sitka and Killisnoo.

E. W. Molander, a small stockholder in the International Stevedoring Company, has asked the Superior Court to appoint a receiver for the corporation. The complaint alleges that the defendants, the International Stevedoring Company, Alexander McDermott, James S. Gibson, George H. Walker, Frank Waterhouse and W. F. Andrews, took dividends from the capital stock instead of the net profits, which is in direct violation of the Washington statute. The complaint further alleges that through the inability of the trustees, the general business depression and the extravagant salaries paid officials of the company, that the assets and earnings of the company are unable to pay debts. According to complainant the as-

sets of the International Stevedoring Company do not exceed \$50,000, while it is indebted to a Seattle bank for \$75,000.

The action was brought for the benefit of the complainant and other stockholders.

The Alaska steamship lines are expected to engage in the most ruinous rate war yet undertaken. The Alaska Steamship Company began the war by announcing an excursion rate of \$75 to Norton Sound and return, covering a voyage of twenty-five days, the lowest rate ever made. This reduction is supposed to be aimed against the Schu-bach-Hamilton Steamship Company, which operates the steamer St. Croix on the excursion route at the rate of \$100 to Norton Sound and return.

The steamer Ohio will be withdrawn on account of business stagnation at Nome, and placed on the Valdez run. The steamer Senator will be withdrawn after her second trip and will be held until the 22d of July, when she carries a party of Shriners to Norton Sound.

G. N. Skinner will operate the Sound steamer Camano on the run to Alki Point during the summer. She was formerly run between Everett and Whidby Island points. The steamer will be operated as nearly as possible on an hourly schedule, leaving pier 3 and calling at both Alki Point and South Alki. The Camano has a passenger carrying capacity of 200.

Captain S. C. Loveland of the steam yacht Alcedo reports that he sighted the wreck of the German steamer Wangard lying on a shoal about five miles south of Mogotes Point, Argentina. It was supposed that the steamer had long since sank below the surface, this being the first time she was reported.

The Wangard was chartered for wheat, and last November loaded at Seattle for the United Kingdom. While en route to her destination she struck on the shoal five miles south of Mogotes Point in the early part of January.

The Nippon Yusen Kaisha liner Karga Maru brought, on her last trip, the first capacity cargo of Oriental freight to Puget Sound in six months. The cargo was composed of general merchandise, and aggregated 5,583 tons. The value of the cargo, the principal items of which were 3,000 tons of new crop tea and 842 bales of raw silk, is in excess of \$2,000,000.

The tea shipment by the Kaga Maru is the largest single importation on record for Puget Sound handling. The heavy importation of this commodity is due to uncertainty of the tariff regulation on this product, and importers are not taking any chances on paying a heavy duty for a long time.

The Canadian Pacific steamers Princess Charlotte and Princess Royal will shortly be equipped with two kilowatt wireless instruments.

The gasoline boat City of Long Beach, which formerly operated between Long Beach and Catalina Island, arrived at Seattle and will enter the Puget Sound excursion business. She is owned by the Nelson Navigation Company of San Francisco, and has accommodations for 260 passengers.

The City of Long Beach measures 136.6 feet in length, has a beam of 22.6 feet, and draws ten feet. She is equipped with twin screw gasoline engines of 250-horse power. She registers 250 tons gross and 191 net, and had a license to carry 260 passengers to sea. On inland waters it is expected that this limit will be raised. The City of Long Beach is said to be able to develop eleven knots an hour under favorable conditions.

The collector of customs at Seattle has imposed a fine of \$500 on the Sound steamer Alaskan for neglecting to renew her inspection papers, which had expired while the steamer lay idle.

Recently the Alaskan was placed in commission and sailed for Port Angeles before it was noticed that the inspection papers were worthless. Upon returning to Seattle Captain T. Rathbone reported to the inspectors, and the fine resulted. Under the peculiar circumstances the fine will likely be restored.

Dodwell & Co., Ltd., Puget Sound representatives of the Blue Funnel fleet of steamers, have leased Pier 8 from the owners, Ainsworth & Dunn, for a long term of years.

Pier 8 will be used to dock all steamers of the Blue Funnel line, and Dodwell & Co. also intend to transact a general wharfage and shipping business.

W. H. Ferguson, a shipping broker of Seattle, has libelled the steamer Seelanaw, which is under time charter to the Alaska Steamship Company, for the Norton Sound trade. Ferguson has a claim against the steamer for commissions on freight provided for the ship on her last trip.

Portland.

J. G. Schobrick, president of Wugman's bank, Amsterdam, Holland, and G. J. M. Simons, editor of Telegraaf, the leading paper of Holland, are investigating the possibilities of establishing direct trade relations between Holland and the Pacific Coast upon the completion of the Panama Canal. The gentlemen represent capital exceeding \$150,000,000.

"We seek investment opportunities not only for ourselves, but for our people, who have commissioned us to represent them," said Mr. Simons at the Hotel Portland recently. "Wonderful reports of the unlimited resources of the Pacific Coast country have reached us. As business men and investors we could scarcely believe our ears. Our desire to learn for ourselves explains our coming here. Our findings exceed the reports.

"For many years money business between Holland and the west part of the United States has been conducted through the eastern financial agencies. We invested our money here; they got the great commissions for its use, while we were compelled to be satisfied with what they cared to give us. Under present conditions Dutch capital amounting to \$150,000,000 is invested in this country. Dutch capitalists own the Santa Fe Railroad practically through Eastern agencies.

"The idea originated with us more than a year ago that it would be good for us to conduct our own business with the people of the West. We have a great deal of money waiting investment when favorable opportunities are found. We are interested in railroad or city bonds; or in bonds for harbor improvements.

"As soon as the Panama Canal is completed there will be established a great Dutch line of steamships making San Francisco, Portland and Seattle their ports of entry. These vessels are already under construction, and millions of dollars are being invested in them. One feature of these new ships is that they will have no steerage. They will have first and second class compartments only. Individual attention will be given every passenger.

"The completion of the canal means that Holland's business after that date will be done with the Pacific Coast. The eyes of the Dutch people are turned on this coast with the most intense interest. Our emigrants are afraid of the long journey overland from New York. Sea passage all the way will bring a stream of immigrants from our country to these shores, most of them provided with money and planning to develop the country."

The Hamburg-American liners Arabia, Alesia, Nicomedia and Numantia, all of which have been superseded in the Oriental-Portland run by Norwegian freighters under charter to the Harriman interests, will again resume oper-

ations on run between Portland and Hongkong, via ports early in 1910 for the Hill people.

It is understood that the Hamburg-American liners will run in conjunction with the North Bank road.

With the Harriman interests the term of service of the Alesia and Nicomedia has already expired, and the Arabia is here on her last trip for them. The Numantia will make two more trips from here before her contract with the company has run out. On the arrival of each craft at Hongkong, she is being sent to Hamburg. While there she will be given a general overhauling, and will be in good shape to return to this coast by the time the wheat and flour exports from the Willamette river the coming season begin to become brisk. The Hamburg-American steamers have been operated by the Portland and Asiatic Steamship Company for the best part of four years.

Those in a position to secure the information first hand declare that the owners see no more inviting field than to retain the craft in the trans-Pacific trade. Several of their freighters which had been running between Atlantic ports are out of commission, and it is said the company has no intention of adding to the number of idle carriers by tying up the craft now in Pacific waters, if it has to operate them independently of any transcontinental railroad company.

In the case of the owners of the steamship Inshr and the British and Foreign Marine Insurance Company, libelants, against the Portland and Asiatic Steamship Company, Judge Wolverton of the Federal Court rendered an opinion which has an important bearing on the liability attached to the shipment of cargoes by sea.

While in dry dock at Hongkong, China, fire broke out on the Indiapura and in order to quench the flames it became necessary to flood the hold with water, thereby damaging a portion of the cargo.

An action was brought in the United States District Court here on the grounds that there was no necessity for docking the Indiapura, and exceptions were interposed to the libel, which proceeded upon the theory that the respondent is exempt from liability under the provisions of section 4282 of the United States Revised Statutes, damage to the cargo having been caused by "fire happening to or on board the vessel," coupled with the general objection that the libel does not state facts sufficient to constitute a cause of action.

The libelant's case is based upon the theory that, by going into the drydock after the goods were received for transportation, the ship was guilty of a deviation, in consequence of which the owners became liable in damage for the value of the cargo destroyed as for a breach of the contract of affreightment. Judge Wolverton cited several decisions of the United States Supreme Court to sustain his opinion that the injured cargo having been insured against marine loss, and the libelant having taken an assignment of the assured's rights of action against the respondent, the libelant must recover, if at all, in the right of the shipper against the carrier, and not by any contractual relation springing from the contracts of insurance, and that it is the duty of the owner of a vessel receiving cargo for transportation to proceed without unnecessary deviation or delay in the course agreed upon in the contract, or, if none be designated, in the customary or usual track of sea to the port of delivery.

According to Judge Wolverton's ruling the term deviation in the law of shipping has, at the present day, a varied meaning and wide significance. It was employed originally, no doubt, he said, for the purpose its lexicographical definition implies, namely, to express the wandering or straying of a vessel from the customary course of voyage; but it seems now to comprehend in general

every conduct of a ship or other vehicle used in commerce tending to vary or increase the risk incident to a shipment. Thus delay in starting a shipment, when unreasonable or unexcused, came to be regarded as a deviation, not because the vehicle employed departed from the usual route of travel, but because the risk of shipment was changed or increased, and became, in effect, not the same as the one with reference to which the parties contracted. In consequence of this ruling the case will now have to proceed to trial on its merits.

The new floating dock, which will compete with the dry dock owned by the Port of Portland in the handling of coasting vessels, built for the Oregon Drydock Company, was launched from the yards of the Portland Shipbuilding Company June 19th. The dock is 340 feet long, 78 feet wide, 38 feet deep and weighs 2,000 tons.

Balfour, Guthrie & Co. have despatched the steamer Arabia to Hankow, China, with a cargo of 3,500,000 feet of lumber.

The ship channel between Portland and the sea will be deepened to a minimum depth of 32 feet at zero low water. The port of Portland Commission will add one foot this summer to the present depth of 25 feet.

The United States surveyors have completed annual soundings on the bar at the mouth of the Columbia river, and a minimum depth of 26½ feet at dead low water is reported.

According to the report the lowest water found by the surveying party is 12 inches deeper than the extreme depth reported last year, which is thought to be due to the action of the jetty.

The British ship Louisdale, which sailed from Portland for Queenstown February 2d, is reported as arriving at Gravesend in a damaged condition.

The steamer Baily Gatzert has recently given a speed trial over a course of 15,980 feet (three miles and 140 feet) and under a steam pressure of 185 pounds she completed the distance in nine minutes and four seconds.

Browne & McCabe of Portland have been sued by R. P. Schroeder, a longshoreman, to recover damages to the amount of \$15,210. While assisting in loading lumber on the steamer Croydon March 3rd a winchload of lumber struck Schroeder, breaking both legs.

The steamer Geo. R. Vosburg, formerly operated as a tugboat to take schooners in and out, will be operated between Portland, Nehalem and Tillamook in the passenger trade. She has accommodations for 15 passengers.

Ship owners are endeavoring to convince the City Council of Portland that 12 miles an hour is a safe speed for a steamer to run through the harbor, and to this end the Council has been invited to attend a number of tests with some of the speedy packets. The speed limit at the present time is 8 miles an hour.

Captain C. E. Spencer, owner and operator of the steamer Charles E. Spencer, has discontinued the daily service of the steamer between Portland and Astoria. The craft will remain out of commission indefinitely. Captain Spencer withdrew his steamer because of the restrictions of speed in Portland harbor, which caused him to lose an hour's time every day.

Tacoma.

McKenzie Bros. have chartered the British steamer Georgia to take the place of the Norwegian steamer Transit on the run from British Columbia to Skagway. The Transit was recently chartered by a party of Englishmen for a pleasure trip to the Arctic Sea.

The Osaka Shoshen Kaisha, the Japanese Steamship company which has started the Tacoma-Hongkong service, have chartered, on time, the British steamer Fitzpatrick

to alternate with the steamer Tacoma Maru and Seattle Maru pending the completion of the steamer Chicago Maru now in course of construction. The Fitzpatrick is now on her way to Kurrache from Calcutta, and is scheduled to clear from Yokohama for Tacoma August 14th.

The Chicago, Milwaukee and Puget Sound Railway Company and the Osaka Shoshen Kaisha have awarded the contract for handling parcels express for the Oriental business to Wells Fargo Express Co. The agents for the Osaka fleet at Victoria are the R. R. Ritheet & Co. The new line will touch at both Vancouver and Victoria, the same as the Blue Funnel line.

It is not thought that there will be any rate war, as, although the Osaka line has not joined the Pacific Conference, it has agreed to maintain the uniform rate now in operation. Competition will be lively, as the line depends on the freight, carrying but a limited number of first-class and steerage passengers.

Two sailing vessels of last season's grain fleet are reported as having arrived in the United Kingdom.

The German bark Magdalene, which left Tacoma on January 9th, completed the passage around the Horn to Falmouth in 162 days. The British bark Archibald Russell arrived at Falmouth from Tacoma in 173 days.

The British ship Agnes Oswald is expected to arrive at her destination any time, as she was spoken in latitude 47 north in the Atlantic. She is now out 179 days.

Eureka.

A government engineer is surveying Humboldt Bay, and if his report is satisfactory the government will proceed to construct a canal to connect Eel river with Humboldt Bay. A survey of the bay where the fog banks are located will also be made, as the government is expected to make an appropriation for their removal in the near future.

The Eastern Redwood Lumber Company will operate the steamer Iaqua on a regular schedule between Eureka and San Francisco. The steamer will be equipped to carry cattle and livestock, with limited accommodations for passengers. The steamer is now on her last trip to San Pedro, Port Los Angeles and San Diego.

Port Townsend.

All attempts to raise the tug Sea Lion, which was sunk in collision with the schooner Oceania Vance in the Strait of Juan de Fuca, have proven futile, and she will be abandoned. The U. S. tug Snohomish, with three other tugs, worked unsuccessfully for two days over the boat.

The government has chartered the gasoline steamer Spray to co-operate the Coast and Geodetic Survey in charting the waters near the boundary of the United States and British Columbia.

Astoria.

The collector of customs has fined the British steamer Bessie Dollar \$5,000 for failure to bring a consular bill of health for Guaymas, Mexico. A protest has been filed stating that upon leaving Guaymas the steamer's destiny was Nanaimo, B. C., but when off Point Conception the master received orders to proceed to the Columbia river.

Bellingham.

A new shipping concern, the Bellingham Transportation Company, has been organized, with headquarters at Bellingham, and will operate two boats in the Bellingham-San Juan Islands passenger and freight service. An oil-burning steamer, Hunter, a 100-foot 10-knot craft, will alternate with the launch, Elmo, which was recently acquired by the company. The former boat has a capacity of 10 tons of freight and 152 passengers, while the latter is much smaller.

Victoria, B. C.

Captain Baird, superintendent of the Wier line at this port, has received word that the underwriters, engaged in salving the wreck of the steamer Yoserie, have abandoned her. The steamer struck a submerged wreck off the Chilean coast and was beached on the sands at Lebu, Chile, to prevent her sinking.

The subsidy and concessions given the Canadian-Mexican Steamship Company by the Mexican government will not be renewed after the expiration of the present term. This subsidy amounts to \$25,000 a year on the part of the Mexican government, while the Canadian government grants \$25,000 a year subsidy and a mail contract worth \$12,500. While the report is unofficial the department of communications at Mexico City has been considering the advisability of stopping the subsidy and it is believed that a decision adverse to the steamship company has been reached.

Following the action of the Mexican government in refusing to further continue the subsidy the Dominion government has agreed to increase its share of the subsidy by \$25,000, the amount Mexico has withdrawn.

Mexico's reason for withdrawing her subsidy was the extreme one-sidedness of the trade, viz., during the season of 1908 3,000 tons of freight were shipped to Canada as compared with 16,000 tons sent to Mexico.

The subsidy granted the Allen Steamship Company by the Dominion government will be discontinued after being in existence for two years. The subsidy was for service between the Pacific Coast of Canada and New Zealand, each country contributing half. The Canadian government took this action after New Zealand had declined to renew the subsidy. Ninety per cent of Canada's trade with New Zealand is via New York, and the Dominion Department of Trade and Commerce in refusing to continue the subsidy states that the remaining 10 per cent can be handled via San Francisco.

The Vancouver Drydock and Shipbuilding Company will commence within the next two months the construction of a 500-foot drydock. The Dominion government has agreed to assist the project to a substantial extent by granting a liberal subsidy.

The drydock will be capable of handling ocean-going vessels to the extent of 10,000 tons, such as the Blue Funnel liners. It will be the first dock of its kind on the Pacific Coast, being a floating steel pontoon.

The Dominion government granted a subsidy of three per cent on the total cost of the dock for twenty years, and as the estimated cost is one and a half millions this means about \$37,500 per annum. Construction on the drydock, according to the subsidy, will have to be finished within two years, and although the work is of a mammoth nature the promoters of the enterprise are confident that the drydock will be in operation by next autumn.

The Dominion government will establish a lighthouse on Triangle island, outermost of the Scott group off the northwest point of Vancouver island, which will be the most important of North Pacific lights for trans-Pacific liners. The light will be 950 feet above the level of the sea and will be visible for a distance of 50 miles.

HAWAIIAN ISLAND NOTES.

The schooner Prosper, which was recently chartered to carry railroad ties from Hilo to Redondo, Cal., was forced to put back to Kahului while on her way to Redondo loaded with a full cargo of ties.

The underwriters requested that a board examine the

Prosper, and as a result of the survey she was ordered to Honolulu, where she will be put on the marine railway, after discharging her cargo.

The lighthouse at Makapuu Point, the southern point of the island, will be in operation about August 1st.

The contract for the construction of a drydock at the new naval station at Pearl harbor has been awarded by the Navy Department to the San Francisco Bridge Company, they being next to the lowest bidder. The lowest bidder was Leech, a mainland contractor who offered an extremely low bid but was unable to furnish the necessary bond. In view of the fact that this proposal was far below the estimated cost of construction and the completion of the work was not insured by a bond, the naval authorities refused to accept it.

SHIPBUILDING NOTES.

Union Iron Works.

S. S. Manchuria on Hunters Point drydock for cleaning, painting and general repairs.

A. H. S. S. Nevadan on drydock for usual repairs.

Bark Charmer on floating dock for hull repairs, caulking, cleaning and painting.

S. S. Missourian at work for general repairs.

S. S. Santa Maria is having extensive repairs made to her wheel.

S. S. Alameda underwent usual repairs before leaving for the islands.

State tug Governor Markham at works three days for repairs to rudder.

Five flat cars were loaded on the S. S. Brunswick for the Union Lumber Company of Astoria, Wash.

Steamers Roma and Costa Rica at works for engine, boiler and hull repairs.

Steamer Benicia at works for cleaning, painting and repairs to machinery.

Tug Dauntless and launch Despatch on floating dock for cleaning and painting.

U. S. Army transport Sheridan will be at works Tuesday to begin work on contract.

Union Iron Works has secured the contract for repairing the Standard Oil barge No. 91, which was wrecked up the coast.

Repairs to the ship Simla, which arrived from Central America where she was almost completely destroyed by fire, will be completed at the Union Iron Works.

The plates for the U. S. submarines Carp and Barracoua are now ready for delivery.

Cryer.

The launch Captain Jack Wright was launched from Cryer's yard July 1st.

The tug Twilight on ways being overhauled.

Tug R. D. No. 55 on ways being overhauled.

C. W. Smith.

The Pacific Fertilizer and Guano Company are having their boat Laysan overhauled.

Plans for the ferry boats to be used on San Francisco Bay by the Western Pacific Railroad Company have been completed and are now being inspected in New York by President Jeffery of the company for that official's final sanction.

The Interisland Steam Navigation Company of Honolulu is contemplating the construction of a 5,000-ton steamer to operate between Honolulu and Newcastle, Australia. The boat will be operated on the run between Honolulu and Newcastle, and returning with coal. The vessel will probably be constructed in England.

S. D. Lindsay of Catalina, Cal., has interested capital in the project to construct a glass bottom boat for Catalina Island trips which will cost \$25,000 and have a carrying capacity of 300 passengers.

Bids for the construction of the two battleships Arkansas and Wyoming, authorized by the last Congress, will be opened at the Navy Department on August 18th.

According to the specifications the installation of a turbine engine is contemplated, and bids will be governed accordingly. Bidders will, however, be allowed to submit proposals for a combination of the turbine and reciprocating engines.

These ships will be of the Delaware type, of 20,000 tons or more displacements.

It is rumored that the Pacific Mail Steamship Company has awarded contracts for the construction of four new steamers for service on the Panama and South American routes.

The Regulator Steamship Line, owners of the steamer Dalles City, are considering the advisability of having a new hull built for that steamer. If this is done the craft will be converted into an exclusive freighter, and the passenger traffic will be handled by the Bailey Gatzert.

After buying for \$3,300, the British steamship Zafiro, which cost more than \$100,000 to build, the Chicago Junk Company of Seattle stated that it was undecided what it would do with the vessel, but there was a strong probability of her being repaired and placed in commission in the merchant marine. Although condemned by the Navy Department, she is unfit for service in that branch of the Government alone, and with a little expenditure is said to be capable of doing good work in the merchant marine for years to come. She was built by Hall Russell & Co., at Aberdeen, Scotland, in 1884, and her steel hull is in good condition today. Built under British registry, she would have to return to that flag if placed in commission again, but as a cargo carrier in the foreign trade, the Zafiro, it is believed, would prove a good venture. She is 214 feet long, 31 feet beam and 14.6 feet draft, making her capable of carrying a good load.

The new liner Wilhelmina, building at Newport News for the Matson Navigation Company, will be launched on September 15th, and a month later turned over to the owners.

Upon arrival at San Francisco the Wilhelmina will be converted into an oil burner, although she will come around the Horn burning coal.

The Union Iron Works of San Francisco have completed a barge which will shortly be towed to the Puget Sound Navy Yard, there to be fitted with a 100-ton capacity floating derrick, now in course of construction. The crane, which will be used in lifting guns and heavy armor, cost \$250,000.

Work of repairing the United States transport Dix was begun at pier 5 yesterday, the contract having been awarded by the quartermaster's department to Wright & Smith, a Seattle machine firm. The contract calls for general overhauling to machinery and on deck, which is always necessary after a long voyage. The repairs will cost about \$4,000. Five bids were submitted, and while the successful firm did not submit the lowest figure, it offered to complete in the time, eight working days.

Bids were opened at the United States quartermaster's office for the construction of a steam tug to take the place of the Cartwright. The proposals were forwarded to Washington, D. C., for authorization to award the contract.

The tug is to be of wood, 130 feet in length, with a beam of 24 feet and draft of 8 feet. The engines are to be triple expansion, with cylinders 15, 24 and 38 respectively and a stroke of 24 inches. The specifications call for a Mosher boiler or other make equally as good, several of the bidders basing tenders on various makes of boilers.

Following are the figures submitted:

Phillip Sloan of Seattle—With Mosher boiler, \$59,500; Almy boiler, \$57,000; time five months.

Joseph Supple of Portland—\$65,000; ten months to complete.

Heffernan Engine Works of Seattle—Mosher boiler, \$72,200; Almy boiler, \$65,100; Babcock & Wilcox boiler, \$75,900; time seven months.

Willamette Iron & Steel Works of Portland—Mosher boiler, \$74,000; Ballin boiler, \$73,000; to complete February 1, 1910.

International Contract Company of Seattle—Mosher boiler, \$79,200; to complete December 31, 1909.

The Moran Company of Seattle—Roberts boiler, \$76,500; Scotch Marine boiler, \$80,000; 155 working days.

Hall Brothers, Eagle Harbor—Mosher boiler, \$80,000; Almy boiler, \$77,000; Babcock & Wilcox, \$84,350.

Craig Shipbuilding Company, Long Beach, Cal.—\$84,000; steel hull, \$90,000.

A United States engineer has been sent to Portland to prepare plans and specifications for the reconstruction of the dredge Chinook.

Congress the last session appropriated \$200,000 for the reconstruction and maintenance of the Chinook on the bar at the mouth of the Columbia river; \$80,000 is for the repairs to her boilers, \$45,000 for repairs to hull, and the remainder for operating expenses. On completion of the specifications and their acceptance work will be rushed as rapidly as possible, and by the early summer of 1910 it is expected that the Chinook will be available for service on the bar.

During the short space of time that the Chinook operated on the bar she was handicapped in many ways. The vessel was of too great draft for the bar at that time. She was also too high out of water, and 1,600 tons of pigiron ballast was necessary to keep her upright when without a load of sand. It is the desire of the Government to cut away all the upper works to the main deck, move the houses and engine room aft and leave only a navigating bridge and pilot house amidship. This will cut the sides of the ship down about eight feet and will reduce the draft and increase the stability to such an extent that the pig-iron ballast can be removed.

Until the specifications of the designer are filed and accepted bids for the work will not be asked. San Francisco, Puget Sound and Portland firms will be bidders on a contract which will involve about \$125,000. A time limit will be placed on the work.

The dredge Clatsop, which has been tied up at the Government moorings since her arrival from the Atlantic Coast, will leave for the mouth of the river soon. The new grate bars for the dredge have arrived and are ready. The Clatsop will take the place of the old dredge William S. Ladd.

THE GOVERNMENT OF THE PHILIPPINE ISLANDS BUREAU OF CUSTOMS.

Manila, May 13, 1909.

Customs Marine Circular No. 23—Passengers and baggage; regulations governing landing of, at the Port of Manila—To all Collectors of Customs, ship-owners, masters, agents, and others concerned:

Paragraph 1—Under the provisions of Section 4 of Act No. 219, Section 3. Paragraph 11, of Act 353, of the Philippine Com-

mission, and Manila Custom House General Order No. 122, the following regulations relating to the landing of passengers and their baggage are hereby published for the guidance of all concerned:

Paragraph 2—(a) The masters of vessels arriving at the Port of Manila shall cause the prompt delivery of passengers' baggage at ship side into the official launch, lighter, or other craft provided for the purpose by the company holding the contract for landing passengers and baggage.

(b) The discharge or landing of passengers' baggage shall not be permitted to interfere with the free passage up or down gangways of passengers or visitors embarking on or disembarking from vessels.

(c) The contractor's launch assigned for the purpose of transporting passengers and baggage shall have precedence at ships' gangways over all but the Quarantine and Customs Boarding Officers' launches.

(d) It shall be the duty of the Customs Inspectors in charge of vessels to insure compliance on the part of ships' officers with these provisions.

Paragraph 3—The "landing" or wharf space designated in Manila Custom House General Order No. 122 for the landing of passengers and their baggage shall be kept free from obstructions, clear of other launches or water craft, and the contractor's launch while embarking or disembarking passengers and baggage shall have precedence at said landing; provided, that the "landing" or wharf space thus reserved may be used for embarking or disembarking passengers and baggage from Government or private launches when no delay to or interference with the landing of passengers and their baggage from the contractor's launch is involved.

Paragraph 4—Philippine Customs Officers shall give due publicity to the terms of this circular, a copy of which shall be delivered by the Customs Boarding Officer to the master of each incoming passenger vessel. Copies shall also be transmitted to all steamship companies and steamship agents, the Director of Navigation, the Purchasing Agent, the Quartermaster on Charge of Water Transportation, and to the Chief of Police for transmission to the police officer assigned to the building occupied by the Union Ticket and Information Co.

H. B. MCCOY,

Acting Insular Collector of Customs.

PROPOSED WIRELESS LEGISLATION.

In the Senate of the United States, June 9, 1909, Mr. Frye introduced the following bill, which was read twice and referred to the Committee on Commerce:

A Bill to require apparatus and operators for radio-communication on certain ocean steamers.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that it shall be unlawful for any ocean-going steamer certified to carry, or carrying, fifty passengers or more to carry passengers between ports two hundred miles or more apart by sea unless on leaving her port of departure such steamer shall be equipped with an efficient apparatus for radio-communication in good working order and in charge of a person skilled in the use of such apparatus.

For the purpose of this Act apparatus for radio-communication shall not be deemed to be efficient unless the company installing it shall contract in writing to exchange, and shall in fact exchange, as far as may be physically practicable, to be determined by the master of the vessel, messages relating to the safety of the vessel or those on board, the ship's position, weather, and information to aid navigation with shore or ship stations using other systems of radio-communication.

Sec. 2. That any owner, agent, or master of any such steamer who shall carry, or permit to be carried, passengers upon any such steamer not equipped with an efficient apparatus for radio-communication in good working order and in charge of a person skilled in the use of such apparatus, as described in section one of this Act, shall, upon conviction thereof, be fined not more than two thousand dollars: Provided, however, that it shall constitute a good defense to a prosecution under this Act for the defendant to show that corporations supplying efficient apparatus for radio-communication above provided for have entered into a combination for the purpose of maintaining or enhancing the rental or price of such apparatus.

Sec. 3—That this Act shall take effect and be in force one year after the date of its approval.



YACHTING SECTION



Commodore W. F. Stone's sloop Presto of the Corinthian Yacht Club successfully defended the San Francisco perpetual challenge cup against the sloop Mah-pe of the South Coast Yacht Club over the regular channel course. The Mah-pe was called upon to allow the Presto five minutes and thirty-nine seconds time allowance, but on the actual time of the boats the Presto was the winner by four minutes and fifty-five seconds. This, with the time allowance, gave the race to the Presto by ten minutes and thirty-four seconds corrected time.

The race would have undoubtedly been closer had the Mah-pe not met with a mishap after half the course had been completed. After rounding the north stakeboat on the reach from Goat island shoal buoy the Mah-pe carried away her jib halyards, which handicapped her throughout the balance of the course. There is little doubt, however, but what the Presto would have won without the mishap. Up to the time that the Mah-pe carried away her jib halyards the race was the prettiest ever seen for the cup. The yachts were practically on even terms at the time and had been from the start. While the Mah-pe lost just a minute and a half in getting the jib set again, it hardly set right and proved a handicap for the balance of the course.

A. H. Powers, head of the Smith-Powers Logging Company, of Marshfield, Ore., has purchased at San Francisco and brought to this city the gasoline speed boat General II. She has a speed of 25 miles an hour, and is the fastest small boat on the Pacific Coast, with the exception of Konocti, owned

race on Sunday, in the lightship race for the Shreve cup. The members of the San Francisco Yacht Club are sparing no means to make the stay of the southern yachtsmen a pleasant one and several of the members will make the trip south on the Mah-pe when it returns to San Pedro, probably the latter part of next week. Carl Westerfeldt will be one of the crew. Both Saturday's and Sunday's events are handicap and are being handled by the regatta committee of the Sausalito Club.

The Pacific Association of Amateur Oarsmen will handle the regatta, which will take place on the morning of July 5th, and the clubs belonging to the association will enter crews in the various events.

The races will be held near Black Point and the floats of the Dolphin and South End clubs will be used to start from.

The South End Rowing Club held its annual Ladies' Day at their boathouse, foot of Van Ness avenue. The largest crowd of the season enjoyed the beautiful weather on this the proposed site of the Aquatic Park, where boat racing, swimming, diving and other aquatic sports were participated in by members of the Olympic, Dolphin, Ariel and South End clubs. Enchanting music was furnished by the Fifth Regiment Infantry, N. G. C., band for the open-air program. Dancing was indulged in till late hours, with music by a popular orchestra. All voted it a most delightful affair, and may there be many more of them where there is water sports for all.



PRESTO WINNING THE RACE.

The yacht Hawaii II, the Hawaiian entry in

Yacht—	Start- ing time.	Presidio buoy.	Goat Island buoy.	North stake.	Presidio buoy.	Fin- ish.	Elapsed time.	Time allow.	Corrected time.
Presto.....	1:30:35	1:42:53	2:18:14	2:27:24	3:15:37	3:32:03	2:01:28	5:39	1:55:49
Mah-Pe.....	1:31:22	1:43:58	2:18:27	2:27:38	3:22:21	3:37:45	2:06:23	Scratch.	2:06:23

by E. J. Holt, at San Francisco.

Former Commodore Philips of the San Francisco Yacht Club announced that he would offer a cup for a race between the yachts Mah-pe of the South Coast Club and the Yankee, Nixie and Challenger of the San Francisco Club.

The race will be sailed this Saturday afternoon over the same course as the challenge cup race of last Saturday.

The Mah-pe will also enter the San Francisco Club's

the second trans-Pacific race from the San Pedro to Honolulu last summer, won handily from the pick of the local racers in a race from Honolulu to Kahului, Maui, and return, beating her four competitors both on the beat up and straight run back.

Her performance, when pitted against schooners twice her tonnage has encouraged the local yacht club to talk of entering the Hawaii II in the next trans-Pacific race, which it is hoped will be from San Francisco to Honolulu.

In her first race the Hawaiian yacht was badly beaten

by the South Coast Yacht Club entry and the San Pedro Yacht Club entry.

PACIFIC MOTOR BOAT CLUB.

Instructions for Motor Boat Regatta, Belvedere, Cal., July 5, 1909.

To be held under the auspices and management of the Pacific Motor Boat Club and open to motor boats propelled by internal combustion motors and owned by members of some recognized motor boat club or yacht club.

Entries to Close with the Secretary, June 30, 1909.

Boats will be divided into four classes and there will be a separate race for each class, with prizes as follows:

Class A—Club race for motor boats owned by members of the Pacific Motor Boat Club, approximately five statute miles. Handicap by performance. First prize, Commodore's cup. Second prize, 5 gallons cylinder oil, presented by H. L. Burleson.

Class B—Cruisers not exceeding forty feet in length with full deck house or hunting cabin. Speed limit twelve statute miles per hour. Course around Angel Island, approximately ten statute miles. Handicap under the American Power Boat Association rules. Measurements of boats should be specified with entry, but for the convenience of those not prepared to furnish this information, the club measurer will be at the club house in Belvedere from ten o'clock until noon, Sunday, June 26th, to take measurements. Owners' measurements will be accepted to start, but the measurement of the winning boat must be verified by the club measurer. First prize, cup to be presented by the Pacific Motor Boat Club. Second prize, complete kit of tools, presented by the Phoenix Tool and Valve Company.

Class C—Semi-speed boats not exceeding forty feet in length, with a speed limit of eighteen statute miles per hour. Course from stake boat in Belvedere Cove around Southampton Lighthouse, approximately seven statute miles. Handicap by performance. Prize, searchlight, presented by the Geo. P. Moore Motor Supply Co.

Class D—For motor boats not exceeding twenty-five feet in length or a maximum speed of nine statute miles per hour. Handicap by performance over a course to be determined around Belvedere Cove. First prize, cup presented by the Standard Gas Engine Company. Second prize, 5 gallons Monogram cylinder oil, presented by the Geo. P. Moore Supply Co.

Club race to be called at 11 a. m. sharp. Other three races to take place in the afternoon, first race to be called at 1 p. m. sharp. The courses for Classes A and D will be staked off at noon time on Sunday, July 5th, and between that time and 10 a. m. on Monday, July 5th, each of the boats entered should be run over the course and her exact time taken by the owner. This time must be given to the committee at the club house not later than 10 a. m. on the day of the race, and all handicaps will be based upon the running time of the boat as thus ascertained by its crew. Any boat covering the course in the race in one minute less than the time given for her trial run; will be disqualified.

ENFORCING THE FEDERAL NAVIGATION LAW FOR EQUIPMENT OF MOTOR BOATS.

The revenue cutter McCullough, Captain Daniels commanding, has been extremely active in apprehending violators of the law relating to the equipment of motor boats. Many owners have been fined, particularly in the up-river sections. For the benefit of our new subscribers and the many requests received at his office we republish the laws in full and as it appeared in our issue of April 17, 1909.

Equipment of Motor Boats.

March 25, 1909.

To Collectors of Customs and others concerned:

The Department has received inquiries as to the equipment required by the act of June 7, 1897, and section 4426, Revised Statutes, to be carried on small motor vessels. In order to insure uniformity in the enforcement of this law, you are informed that small motor vessels navigated in your district should be equipped as follows:

Whistle, Fog Horn, and Bell.

All motor vessels, without regard to size or use, must be provided with an efficient whistle, an efficient fog horn, and an efficient bell. No size or style of whistle, fog horn, or bell is prescribed, provided it is available and sufficient for the use for which it is intended. The word "efficient" must be taken in its ordinary sense, considered with reference to the object intended by the provisions in which the word appears, namely, the production of certain signals. The power to operate the whistle is not prescribed, but it must be of such a character as to produce a "prolonged blast," which is defined as of from four to six seconds duration.

Lights.

When navigated between sunset and sunrise, they must carry regulation lights, namely:

1. A bright white light at the bow or head of the vessel.
2. A green light on the starboard side and a red light on the port side provided with proper screens. The side lights may be so affixed to the coaming or to the sides of the deck house as to be properly screened, provided the lantern is backed with metal. Whenever the green and red side lights can not be fixed, they must be kept lighted and ready for use as provided by article 6 of the act of June 7, 1897.

The law does not appear to permit the use of a three-color "combination" light.

3. A white light aft, showing all around the horizon, to range with the head light.

Copies of Rules.

Such vessels are also required to have on board two printed copies of the rules which must be observed by them, which rules will be furnished by local inspectors of steam vessels on request.

Life Preservers.

All such vessels of 15 gross tons or less engaged in carrying passengers for hire, in addition to the equipment above stated, are required to carry one life preserver for each passenger carried and shall be operated only in charge of a person duly licensed by the local inspectors of steam vessels. Such vessels when used only as private pleasure boats and not at any time engaged in the carriage of passengers for hire are not obliged to comply with the provisions of law in regard to life preservers and licensed operators. (The life preservers must be of the sort prescribed by the regulations of the Board of Supervising Inspectors. They must bear the United States Inspectors' stamp.)

While the law does not require it, the department recommends, in the interest of safety to life, that a life preserver for each person on board be carried on all motor boats, regardless of size or occupation.

Documenting, Inspection, Etc.

All motor boats of over five net tons engaged in the carriage of freight or passengers for hire must be documented; that is to say, licensed by the collectors of customs. (Vessels under five net tons are not documented in any case.) The license of the vessel obtained from the collector of customs (designated a document) is additional to and must not be confounded with the license required for the operator of a motor boat of fifteen gross tons or less carrying passengers for hire.

Motor vessels of over fifteen gross tons engaged in the carriage of passengers or freight for hire must also be inspected by the United States local inspectors of steam vessels and must carry a licensed engineer and a licensed pilot.

Documented vessels must have name and home port on stern and name on each bow. Official measurement is necessary only in case of vessels requiring to be documented.

While the law does not require it, the department recommends that the name be conspicuously displayed on undocumented motor boats.

HERBERT KNOX SMITH, Acting Secretary.

Official copies of the above in pamphlet form can be had by addressing the U. S. Supervising Inspector's Office, Consular Building, Battery and Washington, San Francisco, Cal.

FOR SALE—Cabin launch Viola, 28 feet long, 6' 7" beam and 2' 0" draft; 20-h.p. 4-cylinder gas engine; in excellent condition; newly renovated and painted. C. W. SMITH, N. side Tidal Canal, Park Street Ridge, Fruitvale, Cal.

THE CHARTER MARKET.

Lumber chartering has been a trifle more active during the past week, although freights are not firm. The weekly circular of the Shipowners' Association of the Pacific Coast notes no changes in coastwise asking rates, but to Mexican ports a drop is announced. To Guaymas the rate has dropped from \$5.50 to \$5, and the same is true of lumber for the Hawaiian Islands. To Santa Rosalia the rate is now \$5, a decrease also of 50 cents.

The West Coast market is none too firm, and it is reported that a vessel has been offered for 1 shilling 3 pence below the minimum asking rate of the association. This offer was made in preference to keeping the ship idle.

It is generally believed that more wheat will be exported from Portland this season than ever before on account of the increased acreage of the cereal and the fact that another railroad will be hauling grain to Portland. But aside from the ships under charter there are a number of square riggers coming here in ballast in search of cargo and it is held these may be picked up at a reasonable rate. Some of them are Frenchmen not controlled by the combine, and will be offering at a low figure just in order to keep moving and earning the bounty allowed by the French Government.

During the past week the exporters have refrained from adding to their tonnage, evidently believing that they have sufficient number of vessels nearing the Columbia river to take care of the shipments they may want to forward the early part of the coming season. So far their tonnage holdings comprise the German steamship Walkure, Dutch steamship Netherlands and about thirty windjammers. It is estimated that this fleet has an aggregate capacity of something like 3,500,000 bushels, a larger quantity of wheat than is usually set afloat here in September and October.

Three Chilean square riggers are en route to Puget Sound to load lumber for the West Coast. All of them are fixed on owners' account, and all will be dispatched for Valparaiso for orders. The Royal Sovereign will load at Hastings mills, the Curzon either on Puget Sound or the British Columbia side, while the County of Linlithgow will receive cargo on the Sound.

The bark Sea King, which has been sold to Atlantic buyers, will load large timbers at Tacoma for Bath, Me. This charter calls for about \$11. The schooner M. Turner is taken to load on Gray's or Willapa harbor for Iquique at the prevailing rate of 38s 9d. The schooner J. H. Lunsman has a fairly favorable charter of 33s 6d, lumber from Hastings mills to Kobe or Osaka. The schooner Alice McDonald will receive \$6 net, lumber from Puget Sound to Mazatlan. These charters are reported in the weekly circular of Hind, Rolph & Co.

After lying idle for months on Gray's Harbor the schooner Sophie Christensen has been chartered to carry lumber to Honolulu at \$5, and the schooner Espada has a similar charter. The steam schooner Carmel is taken for lumber, South Bend to San Francisco, at \$3.

American steamer Olson & Mahony, Albion to Guaymas or Mazatlan, time charter; schooner Ariel, Puget Sound to Guaymas, \$5; German steamer Arabia, time charter, Portland to Hankow. This rate is said to be 3s 6d on dead weight. The Arabia has just completed a time charter to the Portland & Asiatic Company, and the Norwegian steamer Rygja, which has replaced her, is taken for a full cargo to Manila on her first voyage from Portland in this service.

Hind, Rolph & Co. report the charter of the French bark Francoise D'Amboise for grain from San Francisco to United Kingdom at union rates. This charter party contains an option of 28s if the ship loads at Portland or

Puget Sound, this being 6d above the union minimum.

The British steamer Willisden is reported taken back for lumber from Eureka and Puget Sound to Melbourne and Adelaide. The Norwegian steamer Jethou will receive \$1,150 per month on time charter for freighting lumber from Gray's Harbor to Port Pirie. The British ship Springbank and American barkentines Koko Head and Puako are reported engaged to load lumber on the British Columbia side for Australia or West Coast.

Barkentine Koko Head, lumber, San Francisco to Australia or West Coast. Barkentine Puako, lumber, San Francisco to Australia or West Coast. French bark Bossnet, general cargo, Antwerp to Portland. Schooner A. F. Coates, lumber, San Francisco to Guaymas. Chilean bark Recart de Sober, from Iquique to the Sound. M. Turner, 38s 9d, Gray's Harbor or Willapa Harbor to Iquique; Royal Sovereign, Hastings Mills to Valparaiso, owners' account; Curzon, Puget Sound or British Columbia to Valparaiso, owners' account; County of Linlithgow, Puget Sound to Valparaiso, owners' account; J. H. Lunsman, 33s 9d, Hastings Mills to Kobe or Osaka; Alice McDonald, \$6 net, Puget Sound to Mazatlan; steamship Carmel, South Bend to San Francisco, \$3; schooner Espada, Gray's Harbor to Honolulu, \$5; schooner S. Christensen, Gray's Harbor to Honolulu, \$5.

OVERDUE VESSELS.

The British bark Forteviot, which cleared from Hamburg for Santa Rosalia over 180 days ago, has been placed on the overdue list.

The Forteviot is a vessel of 3,145 gross tons, and, as she has some very fast sailing records to her credit, considerable anxiety is felt on account of her slow passage.

The Norwegian ship Sophie, on the boards at 45 per cent, which was paid, arrived at Sydney from Ancon and was withdrawn.

The British bark Holt Hill, which has been on the overdue list for some time, has been spoken. She was en route from Iquique to the United Kingdom.

The German bark Alsterschwann, en route to the United Kingdom from Sydney, and on which 20 per cent was being paid, has been spoken.

The British bark Roderick Castle has not been spoken since leaving the Columbia river on December 6th of last year for the United Kingdom with a cargo of wheat.

BARKENTINE KOLALA.

Our frontispiece this issue is of the barkentine Kolala, plying between San Francisco and Sydney, Australia, for Hind, Rolph & Co.

The Kolala is a four-masted wood, single-deck barkentine, 194.8 feet long, 39.9 feet beam and 15.8 feet deep, and was built by the H. D. Bendixen Shipbuilding Co. in 1901, at Eureka, Cal.

This is the size of vessel that belongs in the \$3,000 class in Mr. Bendixen's now famous remark that small vessels cost about \$200 more than the builder gets for them; larger ones about \$800; quite large vessels \$1,000 to \$2,000, and large vessels \$3,000 more than can be got for them.

The vessel is of 891 tons gross and 776 net tons.

The Kolala's usual cargo is lumber, of which she carries 1,120,000 feet to Australia, and coal as a return cargo, although a cargo will be taken wherever it is profitable. No passengers are carried.

The crew consists of fourteen men, namely, the master, mate, second mate, carpenter, cook, boy and eight able seamen.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS

Office of U. S. Lighthouse Inspector, Twelfth District, San Francisco, Cal., June 24, 1909.

San Francisco Bay, California. (List of Lights and Fog Signals, Pacific Coast, 1908, page 18, No. 37, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 25). Notice is hereby given that four and one half fathom Gas Buoy, moored 2700 feet eastward of Pacific Mail S. S. wharf, San Francisco Bay, California, heretofore reported extinguished, was relighted June 22.

San Francisco Bay, California. (List of Lights and Fog Signals, Pacific Coast, 1908, page 18, No. 40, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 29).

Notice is hereby given that Castro Rocks Gas Buoy, moored about 500 feet SW $\frac{1}{2}$ S from the outermost of Castro Rocks, San Francisco Bay, California, found extinguished, was relighted June 23.

San Pablo Bay, California. (List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 30.)

Notice is hereby given that San Pablo Dredged Channel Buoy No. 15, San Pablo Bay, California, heretofore reported almost submerged, was replaced June 23.

By order of the Lighthouse Board,

W. G. MILLER,
Commander, U. S. N.

Office of U. S. Lighthouse Inspector, Twelfth District, San Francisco, Cal., June 25, 1909.

Blunt's Reef, California. (List of Lights and Fog Signals, Pacific Coast, 1908, page 24, No. 60, and List of Lights, Buoys, and Daymarks, Pacific Coast, 1908, Page 36.)

Notice is hereby given that Blunt's Reef Light Vessel No. 83, off Cape Mendocino, California, was replaced on her station June 24, and Relief Light Vessel No. 76, temporarily marking the station, was then withdrawn.

No change has been made in Light Vessel No. 83 as to the characteristics of her lights, fog signals, or general appearance.

By order of the Lighthouse Board,

W. G. MILLER,
Commander, U. S. N.

Office of U. S. Lighthouse Inspector, Twelfth District, San Francisco, Cal., June 29, 1909.

Humboldt Bay entrance, California. (List of Lights, buoys, and daymarks, Pacific Coast, 1908, page 37). Notice is hereby given that North Jetty Outer End Buoy, 1, a black first-class spar, off the submerged end of the North Jetty, entrance to Humboldt Bay, California, was reported adrift June 28. It will be replaced as soon as practicable. By order of the Lighthouse Board

W. G. MILLER,
Commander, U. S. N.

CONTRACTS FOR CARE OF SEAMEN.

Circular No. 24.

Public Health and Marine Hospital Service,
Treasury Department.

Washington, D. C., May 28, 1909.

Official notification of the acceptance of the proposals made by the parties designated, for the treatment and maintenance of seamen, for the transportation of seamen, and for the burial of deceased hospital patients. (Pacific Coast ports.)

All relief must be furnished in accordance with the regulations of the Public Health and Marine Hospital Service.

Astoria, Oregon.

St. Mary's Hospital to furnish quarters, subsistence, nursing and medicines. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at San Francisco, Cal.

Bellingham, Wash.

St. Luke's Hospital to furnish quarters, subsistence and nursing. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at Port Townsend, Wash.

Eureka, Cal.

Sequoia Hospital and Sanitarium Association to furnish quarters, subsistence, nursing and medicines. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at San Francisco, Cal.

Honolulu, Hawaii.

Medical attendance to be furnished by a medical officer of the Public Health and Marine Hospital Service; patients suffering from tuberculosis and incurable diseases, excepting leprosy, to be furnished quarters, subsistence, nursing and necessary

TIDE TABLE TO WEEK ENDING SATURDAY, JULY 31.

Golden Gate Entrance to San Francisco Bay.

JULY										
Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
S	Sun	4	6:10	-1.3	13:38	4.7	17:55	3.3	23:40	6.1
	M	5	6:54	-1.2	14:20	4.8	18:50	3.2		
	Tu	6	0:30	5.8	7:40	0.9	15:00	5.0	19:52	3.1
P	W	7	1:30	5.4	8:24	0.4	16:42	5.2	20:55	2.9
	Th	8	2:38	4.9	9:12	0.1	16:25	5.2	22:05	2.5
	F	9	3:56	4.4	10:05	0.8	17:08	5.4	23:18	2.0
3d q	S	10	5:26	4.1	10:56	1.4	17:50	5.5		
	Sun	11	0:15	1.5	6:55	4.1	11:47	2.0	18:34	5.7
	M	12	1:25	0.8	8:15	4.0	12:49	2.4	19:18	5.9
N	Tu	13	2:25	0.1	9:26	4.1	13:37	2.7	20:04	6.1
	W	14	3:20	0.5	10:28	4.3	14:34	3.1	20:50	6.3
	Th	15	4:10	0.9	11:24	4.3	15:26	3.2	21:35	6.4
New	F	16	4:55	1.1	12:11	4.5	16:20	3.3	22:21	6.3
	S	17	5:38	1.2	12:56	4.6	17:10	3.3	23:05	6.1
	Sun	18	6:17	-1.0	13:40	4.7	18:00	3.3	23:54	5.8
A	M	19	8:56	0.8	14:20	4.9	18:50	3.2		
	Tu	20	0:42	5.1	7:32	0.4	14:55	4.9	19:42	3.2
	W	21	1:30	5.0	8:05	0.2	15:26	5.0	20:37	3.0
E	Th	22	2:20	4.5	8:42	0.7	16:00	5.0	21:34	2.8
	F	23	3:18	4.0	9:20	1.1	16:42	5.0	22:34	2.6
	S	24	4:30	3.7	9:55	1.6	17:00	5.0	23:25	2.2
1st q	Sun	25	5:45	3.5	10:30	2.1	17:32	5.1		
	M	26	0:47	1.7	7:10	3.5	11:15	2.5	18:05	5.2
	Tu	27	1:42	1.1	8:22	3.6	12:16	2.8	18:45	5.4
S	W	28	2:05	0.5	9:25	3.8	13:12	3.1	19:30	5.7
	Th	29	2:52	-0.1	10:15	4.1	14:10	3.1	20:18	5.9
	F	30	3:40	-0.7	11:00	4.3	15:08	3.2	21:10	6.1
	S	31	4:22	-1.1	11:42	4.7	16:00	3.2	22:00	6.2

Time used, Pacific Standard, 120th Meridian W.
0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. E.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	19	May 20	Channel getting broader.
Willapa Bay	7	June 9	No change in channel, 16 ft. M. L. W. in channel to South Bend
Columbia River	25	May 28	
Nehalem River	9	Apr. 3	Channel 200 ft. south of buoy.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	13	Mar. 12	Channel not shifting.
Siuslaw River	4	May 1	Beacon on beach in line with south side of gulch leads over bar.
Umpqua River	11 1/2	June 2	Channel is in good condition.
Coos Bay	17	June 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	8	May 31	Channel close to north jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	7	May 20	Channel straight.
Humboldt Bay	20	June 1	North channel very crooked; 18 ft. average low water in straight channel leading out northwest.
San Pedro Bay	20	Apr. 15	No change in channel.
San Diego Bay	25	May 3	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

*About.

medicines by the Leahl Home, excepting contagious diseases by the Queen's Hospital. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at San Francisco, Cal.

Hoquiam, Wash.

Medical attendance to be furnished by an acting assistant surgeon. Hoquiam General Hospital to furnish quarters, subsistence, nursing and medicines; contagious diseases included. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at Port Townsend, Wash.

Juneau, Alaska.

Medical attendance to be furnished by an acting assistant surgeon. St. Ann's Hospital to furnish quarters, subsistence, nursing and medicines; contagious diseases included. Patients who require extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at Port Townsend, Wash.

Ketchikan, Alaska.

Medical attendance to be furnished by an assistant surgeon. St. John's Hospital to furnish quarters, subsistence, nursing and medicines. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at Port Townsend, Wash.

Los Angeles, Cal.

Medical attendance to be furnished by a medical officer of the Public Health and Marine Hospital Service, the Angelus Hospital to furnish quarters, subsistence, nursing, medicines, anaesthetizing, surgical dressings and extra nursing for delirious cases. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at San Francisco, Cal. Out-patient relief to be furnished at the sub-port of San Pedro.

Nome, Alaska.

Medical attendance to be furnished by an acting assistant surgeon. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at Port Townsend, Wash.

North Bend, Oregon.

Medical attendance to be furnished by an acting assistant surgeon. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at San Francisco, Cal.

Portland, Oregon.

Medical attendance to be furnished by a medical officer of the Public Health and Marine Hospital Service; St. Vincent's Hospital to furnish quarters, subsistence, nursing and medicines; contagious diseases included. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at Port Townsend, Wash., except cases considered proper for treatment at Fort Stanton, which will be transferred to the United States Marine Hospital at San Francisco.

Port Townsend, Wash.

Hospital patients to be cared for in the United States Marine Hospital. Patients suffering with tuberculosis, who are considered proper cases for treatment at Fort Stanton, will be transferred to the Marine Hospital at San Francisco. Insane patients to be cared for in Washington State Hospital for the Insane.

San Diego, Cal.

Medical attendance to be furnished by a medical officer of the Public Health and Marine Hospital Service; St. Joseph's Hospital and Sanitarium to furnish quarters, subsistence, nursing, medicines, laundering of patients underwear, use of furnished operating room and surgical dressings. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to be United States Marine Hospital at San Francisco, Cal.

San Francisco, Cal.

Hospital patients to be cared for in the United States Marine Hospital, burial of deceased patients at the hospital cemetery; burial of foreign seamen, \$10.00 each. Insane patients to be cared for at the State insane hospitals.

Seattle, Wash.

Medical attendance to be furnished by a medical officer of the Public Health and Marine Hospital Service; Providence Hospital

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(Sisters of Charity) to furnish quarters, subsistence, nursing and medicines. Patients requiring hospital treatment will, if able to bear transportation, be sent to the United States Marine Hospital at Port Townsend, Wash., except cases considered proper for treatment at Fort Stanton, which will be transferred to the United States Marine Hospital at San Francisco, Cal.

Tacoma, Wash.

Medical attendance to be furnished by an acting assistant surgeon; Fannie C. Paddock Memorial Hospital to furnish quarters, subsistence, nursing and medicines; contagious diseases included. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at Port Townsend, Wash.

Valdez, Alaska.

Medical attendance to be furnished by an acting assistant surgeon; Good Samaritan Hospital to furnish quarters, subsistence, nursing and medicines. Patients requiring extended hospital treatment will, if able to bear transportation, be transferred to the United States Marine Hospital at Port Townsend, Wash.

CIVIL SERVICE EXAMINATIONS.

The United States Civil Service Commission announces that an examination will be held for male stenographer and typewriter for the Departmental, Isthmian Canal, and Philippine services, at San Francisco, California, on July 27, 1909.

Persons who desire to compete in this examination should at once apply to the Secretary, Twelfth Civil Service District, room 241 Postoffice Building, San Francisco, California, for application form 304, which should be properly executed and filed with the Civil Service Commission, Washington, D. C.

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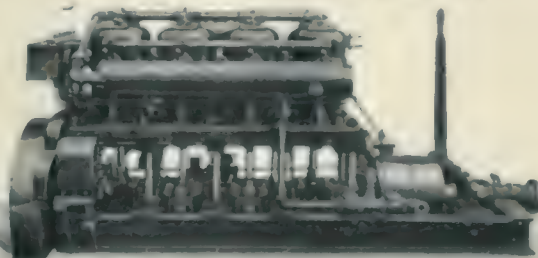
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PACIFIC MERCHANT MARINE

SATURDAY, JULY 17, 1909

VOL. II

NO. 14

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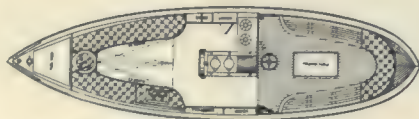
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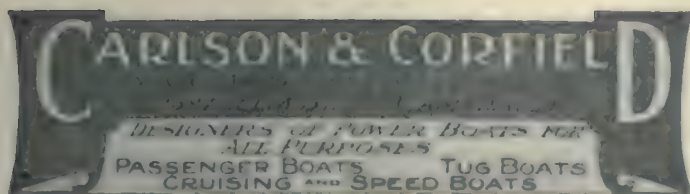
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Pacific Merchant Marine

Volume II

SATURDAY, JULY 17, 1909

Number 14

FIVE YEARS OF CANAL WORK

Progress Made Under American Control Since May 4, 1904

I.

Construction and Engineering—Cost of Canal Construction

The original plan for the locks and dams on the Pacific side was to have one lock located at Pedro Miguel, about 11 miles from deep water in Panama Bay, and two near Balboa (La Boca), about six miles from deep water in the bay. The location of the two southern locks was changed in December, 1907, to Miraflores, 8.31 miles from deep water, and the work is in progress at that point at Pedro Miguel. The water held back at Gatun, on the northern or Atlantic side, will fill Gatun Lake and Culebra Cut, and will be kept from wasting down the Pacific slope by the dams and locks at Pedro Miguel, where Culebra Cut ends. At this point ships south bound will be dropped in twin locks of one flight from the 85-foot level of Gatun Lake and Culebra Cut to a small lake 55 feet above mean sea level, and at Miraflores they will complete the descent to sea level in twin locks of two flights.

At Pedro Miguel the lock chamber is being made in a narrow valley and dams extend from the north approach of the locks to the nearby hills. The east dam will be a concrete core wall about 550 feet long, four feet wide on top and ten feet at base, founded on rock, with only a small amount of earth fill. This dam will contain 3,600 cubic yards of concrete, and no work has yet been done on it. The west dam will be an earth fill of selected, packed material, with a short concrete core wall connecting it to the lock wall at one end and to the rock in the hill at the other. It requires a fill of about 947,000 cubic yards, and on May 1 contained 142,000 cubic yards. Excavation for the lock chamber was begun in June, 1908. It involves the removal of about 1,288,000 cubic yards, and a back fill of about 868,000 cubic yards will be made with the material excavated from the lock chambers. On May 1 there had been excavated about 588,000 cubic yards. About 1,100,000 cubic yards of concrete will be placed in the locks. It is expected that the laying of concrete will be begun at Pedro Miguel in August, the exact date depending upon the completion of the power plant at Miraflores and the erection of the cranes which will handle the materials and concrete.

At Miraflores two dams are to be constructed, one extending from the northeast end of the locks to an adjacent hill; the other, now under construction, being a fill which will close the mouth of the Cocoli River, extends up the west side of the locks and holds the water in the small lake which will be formed between Pedro Miguel and Miraflores, with surface at 55 feet above mean sea level.

The east dam will be of concrete, with regulating gates, and will act as a spillway for surplus water in the lake. The west dam is an earth fill of selected, packed material, similar to that at Pedro Miguel. At its south end it will be connected to rock in Cocoli Hill by a short concrete core wall, and at its north end to the north end of the lock walls, by a similar concrete core wall. This dam has already been thrown across the Cocoli River and has begun to form the Miraflores lake. The elevation of the lake on May 1 was about 18.5 feet above mean sea level, a rise of about ten feet. When it has risen to elevation 35 it will flow, for the present, through a diversion to the Rio Grande, a little distance above the north end of the Miraflores locks.

The construction of these dams will involve the excavation of over 220,000 cubic yards and a fill of over 1,000,000 cubic yards in the west dam, and the placing of 63,500 cubic yards of concrete in the east dam. The fill is made with material excavated from the lock chambers. A back fill of over 2,000,000 cubic yards for the locks is also being made of material excavated from the lock chambers. The

estimated amount of excavation from the lock chambers and approaches is 4,200,000 cubic yards, of which about one-third is rock. The work at Miraflores was begun in January, 1908, and 1,371,000 cubic yards of material have been excavated, and 266,000 cubic yards placed in the west dam. Work on the east dam has not yet begun, and the laying of concrete in the locks will not be started until the Pedro Miguel Locks have been completed.

Between the Pedro Miguel and the Miraflores Locks, the channel is to be 500 feet wide, and will involve about 1,000,000 cubic yards of excavation, none of which has yet been made.

Dredging.

Most of the dredging is in the entrances to the canal at sea level on the Atlantic and Pacific sides. At the Atlantic entrance the channel is to be 500 feet wide and 41 feet deep. It begins at deep water in Limon Bay and extends to the Gatun Locks, a distance of 6.76 miles. In the bay a sea-going 20-inch suction dredge is doing most of the work. The remainder of the dredging comprises a section from the shore line to Mindi Hills, through which a steam shovel cut is being made, and a section from Mindi Hills to Gatun Locks. In the first section the material consists of rock and earth, and it is shattered by dynamite before the ladder and dipper dredges are set to work on it. The material in the second section consists largely of earth, which will be taken out by 20-inch pipe-line suction dredges. It is estimated that the total amount of material to be dredged between deep water in Limon Bay and Gatun Locks is about 22,000,000 cubic yards. Of this amount, 12,690,178 cubic yards have been excavated, and the average for the past year has been 556,594 cubic yards a month. One or more of the dredges of the Atlantic Division are frequently diverted from their work in the channel to auxiliary work, and the average for the year is an indication of their capacity only when it is understood that the dredges are not constantly at work.

The dredging equipment of the Atlantic Division consists of one 20-inch sea-going suction dredge, three 20-inch pipe-line suction dredges, two modern dipper dredges, two ladder dredges left by the French and rebuilt, and a machine shop. Another ladder dredge left by the French will be put in service during the summer. One of the pipe-line suction dredges is excavating in the chamber for the lower locks at Gatun, and one is pumping material into the dam.

At the Pacific entrance the channel to be dredged is 500 feet wide and extends from deep water in Panama Bay to Miraflores locks, a distance of 8.31 miles. For three miles of this distance it follows the channel dug by the French, and the work consists of deepening and widening this channel. Up to the present time the material handled has been earth and small rock, but a layer of rock must be taken off the bottom before the required depth of 45 feet below mean sea level is reached. It is estimated that over 30,000,000 cubic yards of excavation must be done before the channel is completed, and of this amount there have been taken out 12,400,000 cubic yards.

The dredging equipment of the Pacific Division consists of one sea-going 20-inch suction dredge, two sea-going ladder dredges (Scotch type) left by the French and rebuilt, one ladder dredge (Belgian type) left by the French and rebuilt, one modern dipper dredge and one 20-inch pipe-line suction dredge. The last named dredge is excavating in the Miraflores lock entrance. An old French ladder dredge now at the shop at Balboa will be in commission in a few days. A machine shop is also part of the dredging equipment.

Cost of Canal Construction.

The total classified expenditures from appropriations for canal construction up to February 1, 1909, amounted to \$93,915,657.76. These expenditures were made under the following heads:

Department of Civil Administration	\$ 2,618,732.63
Department of Sanitation	8,054,962.64
Department of Construction and Engineering	60,122,448.05

Buildings for Department of Construction and Engineering, including quarters	8,387,502.94	General Administration....	4,993,295.71	.....	0.13
Buildings for Department of Civil Administration..	347,873.97	Total	\$48,183,483.72	38,927,664	1.24
Buildings for Department Sanitation.....	1,254,492.84				
Buildings for military protection.....	64,000.00	Wet excavation:			
Construction of electric light plants.....	848,136.24	Work	2,895,126.90	26,824,260	0.12
Purchase of steamers Panama and Colon.....	1,300,000.00	Plant	5,064,226.58	.....	0.21
Double tracking Panama railroad	1,095,274.90	General Administration....	502,126.24	.....	0.02
Relocation of Panama railroad.....	2,107,265.18	Total	\$ 8,461,479.72	23,824,260	0.35
Docks and wharves, leased to Panama Railroad Co.	577,931.84				
Municipal improvements for benefit of cities of Panama and Colon, to be repaid to United States	2,272,673.75	Total wet and dry:			
Municipal improvements for benefit of Canal Zone settlements, paid from Congressional appropriations	4,007,497.33	Work	33,645,502.92	62,751,924	0.53
Lands purchased and appropriated	272,865.43	Plant	17,504,068.57	.....	0.28
Buildings, tools and machinery, Cristobal shops, leased to Panama Railroad Company.....	174,000.00	General Administration....	5,495,421.95	.....	0.09
Locomotives, cars and equipment, loaned to and used by the Panama railroad	610,000.00	Total	\$56,644,963.44	62,751,924	0.90
Total	\$93,915,657.76	Construction other than excavation:			
Expenditures for construction and engineering were made under the heads of "Work," "Plant," and "General Administration." "Work" includes all direct charges, and all indirect charges not included under "General Administration." "Plant" represents the total plant purchased to February 1, 1909. "General Administration" includes the expense of the office of					
		Work	1,187,406.63	.....	....
		Plant	1,968,776.07	.....	....
		General Administration....	321,301.91	.....	....
		Total	\$3,477,484.61	.....	....
		Grand total.....	\$60,122,448.05	.....	....
		Railroads.			
		The railroad system built up on the Isthmus consists of the			



BAS OBISPO CUT					
. The Americans have widened this point about seventy-five feet and lowered it about thirty-five feet'					
the Chief Engineer, the Disbursing Officer, the Examiner of Accounts, the Secretary of the Commission, the Chief Quartermaster's Department, the Meteorological and River Hydraulics service, and the Y. M. C. A. work in the Commission clubhouses; as also the cost of general surveys, and of transportation of employees of the Commission by the Panama Railroad Company, and expenses of telephone and telegraph service. The expenditures under these three heads were:					
		May 4, 1904, to Feb. 1, 1909.			
Work	\$34,832,909.55				
Plant	19,472,814.64				
General Administration	5,816,723.86				
Total	\$60,122,448.05				
The total expenditures and unit costs of construction and engineering work for the period May 4, 1904, to February 1, 1909, were as follows:					
	Expenditures.	Cubic yards	Unit cost.		
Dry excavation:					
Work	\$30,750,376.02	38,927,664	0.79		
Plant	12,439,811.99	.....	0.32		
Panama railroad and the railroads of the Isthmian Canal Commission. In 1904 the Panama railroad was a single track line 47.65 miles long, from Colon to Panama, with 26.07 miles of siding. The equipment was old and much of it was not worth repairing. It included 24 road and 11 switching locomotives, 24 passenger cars, 908 freight cars, and about 50 cars for miscellaneous service. A machine shop capable of keeping the equipment in repair was located at Colon. New and heavy rails have been laid the whole length of the road; 50.11 miles of main track and 35.5 miles of double track are now operated, and the total trackage, including sidings, is about 160 miles. Over the 86.5 miles of main track 574 trains are operated daily. New equipment has been purchased, and there are now in service:					
Locomotives:			Coaches and cars:		
Switching	10		New and first class.....	9	
4-wheel Baldwin	5		Old first class.....	7	
8-wheel Baldwin	6		New second class.....	10	
6-wheel Hinckley	2		Old second class.....	12	
8-wheel Hinckley	1		New combination mail and baggage	4	
6-wheel Rogers	10		Old baggage	4	
8-wheel Schenectady.....	24				

10-wheel American Locomotive Mogul oil burning. 12	Hospital	2
—	Special	3
Total	Pay coach	1
82	Freight cars	883
	Miscellaneous	280
	Total	1,215

The work of building a new railroad to take the place of the present line, which must be abandoned before the Canal is completed, is more than half finished.

The railroad equipment turned over to the United States by the New Panama Canal Company included 176.2 miles of track, 212 Belgian locomotives, 34 American locomotives, 14 Decauville locomotives, and a quantity of Decauville track. Practically all of the track has been discarded as unsuited to the heavy traffic, and although some of the rolling stock is kept in service, the bulk of the work is done with new equipment. A statement under the head of "Equipment" gives the amount of rolling stock in use on May 1, 1909.

Excavation Equipment.

The results obtained in the past five years would have been impossible without modern excavation equipment. A comparison of the equipment in use at the time of American occupation and at the present time is appended. It includes only the equipment used in dry excavation and does not include the dredges, which are mentioned under the head of "Dredging," or the auxiliary equipment at the Porto Bello quarries, and at Gatun, Pedro Miguel, and Miraflores.

	1904.	1909. May 1
Locomotives:		
French	10	129
American	—	164
Cranes:		
French	2	6
American	—	30
Made on the Isthmus	—	1
Excavators:		
French	3	—
Steam shovels:		
45-ton Bucyrus	—	10
70-ton Bucyrus	1	35
95-ton Bucyrus	1	32
Model 20 Marion	—	1
Model 60 Marion	—	7
Model 91 Marion	—	15
Spreaders:		
Jordan	—	5
Mann-Cann	—	19
Unloaders:		
25-ton pull	—	4
50-ton pull	—	26
Pile drivers:		
Made on the Isthmus	—	15
American	—	2
Track shifters:		
Made on the Isthmus	—	10
Plows, unloading:		
Right hand	—	27
Left hand	—	13
Center	—	6
Cars:		
6-meter dump, French	248	656
30-ton steel flats	—	500
40-ton wooden flats	—	1,778
40-ton coal	—	15
12-yard steel dump	—	800
25-yard steel dump	—	300
4-yard steel dump	—	35
King-Lawson dump	—	1
Ingoldsbys dump	—	12
Goodwin dump	—	12
Work (old French equipment)	60	6
Motor	—	4
Motor velocipede	—	1

The maintenance of this equipment is part of the duty of the Division of Motive Power and Machinery, and for this purpose two large mechanical shops have been built up, one at Gorgona and one at Empire, each employing over one thousand men. In addition to these large shops, field repair shops are maintained by each of the three construction divisions.

(To be Continued)

SENATE TARIFF AMENDMENTS AFFECTING AMERICAN SHIPPING.

Sec. 10. That a discriminating duty of 10 per centum ad valorem, in addition to the duties imposed by law, shall be levied, collected and paid on all goods, wares or merchandise which shall be imported in vessels not of the United States, or which being the product or manufacture of any foreign country not contiguous to the United States, shall come into the United States from such contiguous country. But this discriminating duty shall not apply to goods, wares or merchandise which shall be imported in vessels not of the United States covered at the time of such importation by treaty or convention or act of Congress, to be entered in the ports of the United States on payment of the same duties as shall then be payable on goods, wares and merchandise imported in vessels of the United States; nor such foreign products or manufactures as shall be imported from such contiguous countries in the usual course of strictly retail trade.

Sec. 11. That all materials of foreign production which may be necessary for the construction of vessels built in the United States for foreign account and ownership, or for the purpose of being employed in the foreign trade, including the trades between the Atlantic and Pacific ports of the United States and all such materials necessary for the building of their machinery, and all articles necessary for their outfit and equipment, may be imported in bond under such regulations as the Secretary of the Treasury may prescribe; and upon proof that such materials have been used for such purposes no duties shall be paid thereupon. But vessels receiving the benefit of this shall not be allowed to engage in the coastwise trade of the United States more than six months in any one year except upon the payment to the United States of the duties of which a rebate is allowed; provided, that vessels built in the United States for foreign account and ownership shall not be allowed to engage in the coastwise trade of the United States.

Sec. 12. That a tonnage duty of 2 cents per ton not to exceed in the aggregate 10 cents per ton in any one year is hereby imposed on each and any and all vessels which shall be entered in any port of the United States from any foreign port or place in North America, Central America, the West India Islands, the Bahama Islands, the Bermuda Islands or the coast of South America bordering on the Caribbean Sea, or Newfoundland; and a duty of 6 cents per ton not to exceed 30 cents per ton per annum, is hereby imposed on each and any vessels which shall be entered in any port of the United States from any other foreign port, not, however, to include vessels in distress or not engaged in trade. This section shall not be construed to amend Section 2792 of the Revised Statutes as amended by Section 1 of Chapter 212 of the laws of 1908, approved May 28, 1908, or Section 5 of the said Chapter 212 of the laws of 1908, or Section 2793 of the Revised Statutes. Section 4232 of the Revised Statutes and Sections 11 and 12 of Chapter 421 of the laws of 1886, approved June 19, 1886, and so much of Section 4219 of the Revised Statutes as conflict with this section are hereby repealed. This section shall take effect sixty days after the approval of this act.

SANITARY REGULATIONS FOR CANNED GOODS TO JAPAN AND SALVADOR OF VITAL INTEREST TO UNITED STATES PACKERS.

Law No. 15, promulgated in February, 1900, has for its object the prevention of danger to the public health,

and deals with beverages and foodstuffs in general and the receptacles in which they are contained, saccharine and similar substances, aerated waters, milk, ice and injurious coloring matter. According to Article 1 of the law the authorities are empowered to prohibit or restrict the receptacles in which they are contained, or cooking utensils, if any danger to the public health is apprehended. The owners of the goods may be compelled to destroy them, or the authorities may destroy them, or take such action as they deem proper. Article 2 empowers the officials to take, free of charge, as much as is necessary for the purpose of analysis, so that an examination of the goods in question can be made.

Article 3 states that persons who, having received instructions from the proper official fail to carry out the provisions of the law, within the specified time, shall be liable to a fine not exceeding 20 yen (\$9.96), while persons to hinder an official in the execution of his duty shall be liable to imprisonment for a period not exceeding one month and a fine not exceeding 10 yen (\$4.98). Penalties are provided for persons who do not carry out their duties, and also in connection with bribery.

The following are the principal points in the regulations concerning receptacles for beverages and foods.

Receptacles for beverages or foods must not contain lead or an alloy containing more than 10 per cent of lead. (Art. 2.)

No alloy must be used which contains more than 20 per cent of lead for that part of the solder which touches the contents of the tins, nor may the receptacles be lined with an alloy which contains more than 5 per cent of lead.

In soldering the outer portions of tins which contain or are intended to contain, beverages or foods, persons engaged in this business may not use an alloy which contains more than 50 per cent of lead. (Art. 3.)

The manufacture or repair of enameled receptacles from which arsenic or lead will come out if water containing 4 per cent of acetic acid is boiled in them for half an hour is prohibited. (Art. 4.)

The manufacture of children's feeding bottles from rubber containing lead or zinc is prohibited. (Art. 5.)

Receptacles containing beverages or foods, or intending to contain them, which have been manufactured or repaired in contravention of the provisions of Article 2 and Article 5, may neither be sold, nor stored, nor exhibited for the purpose of sale, nor used for the purpose of business. (Art. 6.)

Receptacles for beverages and foods in which the part coming in contact with the contents is made of or repaired with copper or an alloy of copper, the plating of which has worn off or which has lost its inherent brightness, may not be used in this business. (Art. 7.)

Persons violating these provisions are liable to a fine not exceeding 25 yen (\$12.45).

A large proportion of the canned fruits and vegetables imported into Japan comes from the United States, and it will be necessary to closely observe these regulations if the trade is to be retained.

Salvador.

The official decree of the Salvadorean Government, dated March 29, 1909, provides for obligatory analysis of all imported alcoholic beverages, wines and canned goods. The following fees in silver pesos (silver peso equals \$.375), are charged to cover the cost of analysis: Alcoholic beverages, 0.50 peso per bottle of 24 ounces or

the alcoholic strength permitted by the law; heavy and white wines, 0.25 peso; table wines, 0.05 peso per bottle, and for each grade above the alcoholic strength permitted by law, 0.03 peso. Canned goods, such as meats, fish, vegetables, etc., will pay 0.10 peso per kilo (kilo equals 2.2 pounds). All of the above mentioned articles found to be detrimental to public health will be destroyed. On May 4 beer was added to the list of articles subject to analysis upon importation, and imposing an analysis fee of 0.03 peso per pint bottle.

The advantages offered by steamer connections with the Tehautepec Railway ports are shown by the following facts, recorded by consular officers of the United States at the various points:

Several trial shipments of coffee for San Francisco, California, have recently been made over an entirely new route. The coffee came from the Cordoba district, in the state of Veracruz, and was then carried by the Veracruz and Pacific Railway, which is now in excellent condition and makes schedule time to San Lucrecia on the Isthmus, and thence by a short haul over the Tehautepec railway to Salina Cruz, the Pacific terminal of that road; at Salina Cruz the coffee was sent by vessel to San Francisco.

There is no doubt that this route was selected by reason of lower freight rates as compared with the all rail route. American exporters on the Pacific Coast, therefore, have a new route to Mexican markets for their products which ought to be taken advantage of, for with a lower cost of transportation than formerly a fresh impulse to trade ought to result, more especially in the importation of wines to Mexico.

The Peruvian Congress has granted a subsidy of £30,000 per annum for twenty-one years for a fast steamship service between Callao and Panama.

The law in the case provides:

ARTICLE 1. The term of the annual subsidy of £30,000 is hereby prorogued to twenty-one years, as well as that of the guarantee of the revenue of matches, granted to the Peruvian Steamship and Dock Company of Callao.

ARTICLE 2. During the aforesaid term all the obligations contracted by the company in its contract with the government shall remain in force.

A contract entered into and approved by the Nicaraguan National Assembly in January, 1908, but not published in the "Gaceta Oficial" until February 20, 1909, provides for the construction of a railroad between the Pacific port of San Juan del Sur and the port of San Jorge or other ports on Lake Nicaragua, which would open up rich agricultural country and greatly facilitate transportation in southeastern Nicaragua. The parties holding the contract have up to the present time been unsuccessful in securing the capital necessary to the consummation of the project.

The following information concerning coal and coke in the British Columbia district is furnished by Consul Frank C. Dennison of Fernie:

The Crow's Nest Pass Coal Company has about concluded to add 1,000 coke ovens to its Fernie battery, which now consists of 448 beehive ovens. Their construction will be started this summer and completed by the end of 1910. The erection of these ovens will require an expenditure of \$1,500,000.

Preliminary steps are being taken to hold a world's fair at the city of Panama in 1915. Mr. A. Bienkowski, president, and Mr. E. C. McFarland, secretary.

Pacific Merchant Marine

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ADVERTISING RATES ON APPLICATION

Address All Communications to the Pacific Merchant Marine

In the extreme of desperation merchants of the Pacific Coast are prompted to accept any substitute for a merchant marine on the Pacific as against existing conditions. The necessity of a substitute or cause of these conditions may or may not be traced to those, who now, as a means of relief, will reach for the proverbial straw in their efforts to save the remnant of a commerce which promised to be and should be the moral commercial dreadnought of the world.

The deeper and more comprehensive the researches have been to furnish evidence and proof that has reduced the American merchant marine to its present deplorable condition, and to indicate the grave possibilities of the future, the more wanton becomes the aggressiveness of opponents to oversea traffic. Does the sound thinking American manufacturer or merchant believe that relief will come from Federal ownership in whole or in part of the American merchant marine? Does the unthinking Pacific Coast manufacturer or merchant believe that relief will come from this source? If so, he is totally unacquainted with Pacific mail and railroad methods, and corporation influence in national affairs generally; and how much more preferable and pliable Federal ownership would be than the self preservative features of private ownership and competition. This latter statement is but one simple example of the impropriety of Federal ownership; and the farther we go back in time toward the era of American supremacy on the high seas, the more the chasm between transportation by land and sea is widened.

AMERICAN SHIPBUILDING

According to the official report of Commissioner of Navigation Chamberlain the year's output of American shipbuilding was the smallest since 1898, but new contracts indicate a material increase during the new fiscal year.

During the fiscal year ended June 30, 1909, 1,362 merchant vessels of 232,816 gross tons were built in the United States and officially numbered by the Bureau of Navigation, compared with 1,506 of 588,627 gross tons

during the fiscal year 1908, which was the record year of American shipbuilding.

On the Great Lakes 36 steel steamers of 88,426 gross tons were built, including the Shenango, 8,047 tons, the largest vessel ever built on the lakes. Only two ocean steamships, Mars, 5,451 tons, and Mohawk, 4,623 tons, were built. The Edward B. Winslow, Bath, Me., 3,424 tons, is the largest wooden schooner ever built. No vessels for foreign trade and no square rigged vessels were built during the year. Of the year's output 60,952 tons were barges and canal boats.

Yearly Shipbuilding Returns.

The Bureau of Navigation reports 1,072 sail and steam vessels of 171,864 gross tons built in the United States and officially numbered during the year ended June 30, 1909, as follows:

Wood.

	—Sail—		—Steam—	
	No.	Gross.	No.	Gross.
Atlantic and Gulf.....	108	18,835	395	9,781
Porto Rico	7	79	..	....
Pacific	17	287	204	11,533
Great Lakes.....	..	....	99	1,644
Western rivers .....	..	....	167	3,762
Total	132	19,201	865	26,720

Steel.

	—Sail—		—Steam—	
	No.	Gross.	No.	Gross.
Atlantic and Gulf.....	8	7,472	23	28,613
Pacific .....	..	....	1	499
Great Lakes	1	513	36	88,426
Western rivers .....	..	....	6	420
Total	9	7,985	66	117,958

During the corresponding year ended June 30, 1908, 1,151 sail and steam vessels of 500,327 gross tons were built in the United States and officially numbered, as follows:

Wood.

	—Sail—		—Steam—	
	No.	Gross.	No.	Gross.
Atlantic and Gulf.....	108	32,667	328	12,792
Porto Rico	8	83	1	11
Pacific	15	3,034	266	25,958
Hawaii .....	..	....	1	14
Great Lakes.....	4	52	86	3,193
Western rivers .....	..	....	192	5,356
Total	135	35,836	874	47,324

Steel.

	—Sail—		—Steam—	
	No.	Gross.	No.	Gross.
Atlantic and Gulf.....	1	63	52	87,311
Pacific .....	..	....	11	24,850
Great Lakes .....	..	....	75	304,379
Western rivers.....	..	....	3	564
Total	1	63	141	417,104

Comparative Statement.

	—1909—	
	No.	Tons.
Sail and steam	1,072	171,864
Unrigged	290	60,952
Total	1,362	232,816

	—1908—	
	No.	Tons.
Sail and steam.....	1,151	500,327
Unrigged	355	88,300
Total	1,506	588,627

LOCAL NOTES.

The Department of Commerce and Labor has remitted the fine imposed on the Toyo Kisen Steamship Company for violating the coastwise shipping laws. The daughter of former Vice-President Fairbanks sailed from San Francisco on a world-trip, but upon arrival at Honolulu she was advised that her husband had been ordered to the mainland, whereupon she returned to San Francisco on the Japanese boat. Because of the unusual conditions of the case the fine was remitted.

Bates & Chesebrough will maintain a six-weeks' schedule from San Francisco with the Shippers' Clipper line, beginning January of next year.

The ship William P. Frye will sail for this port August 11th, and will be followed by the ship Mangareve, now in berth at Philadelphia, on August 25th. The ships Aeme, Edward Sewell, Astral, Dirigo, Atlas, Aryan and Erskine M. Phelps will maintain the six weeks' service.

In the libel of the Simpson Lumber Company, owners of the schooner Advent against the steamer Sonoma, United States District Judge De Haven sustained the libel, and the case was referred to United States Commissioner Krull to fix the amount of the damages.

On the night of July 6, 1908, the steamer Sonoma ran down and badly damaged the schooner Advent.

The California Transportation Company's steamer Isleton, which plies between Stockton and San Francisco, was completely destroyed by fire July 1st. The loss is estimated at \$100,000, with no insurance.

The Isleton was a steamer of 615 tons gross register. She was built at Wood Island, Cal., in 1902, her dimensions being 167 feet in length, 36 feet in breadth and 7 feet 6 inches in depth.

The Oakland Dock and Terminal Company have filed incorporation papers with the Alameda County Clerk, the company having been formed primarily for the purpose of development of the western Oakland waterfront. It is incorporated for \$5,000,000, and the stock is held by men connected with the Realty Syndicate and the San Francisco, Oakland and San Jose Railway Company.

The incorporation papers give the company the right to construct, maintain and operate docks, wharves, dry-docks, slips, piers, ship basins, elevators, warehouses, coal yards and all manner of terminal and transfer facilities for railway and water transportation, and to lease and sell docking and berthing facilities of all kinds, and to establish and conduct an extensive wharfage business.

John D. Spreckels saved the Oceanic Steamship Company from a receivership under the terms of the deed of trust securing its bonds by paying a long delayed semi-annual interest-coupon amounting to \$60,125. This interest has been due since January 1, 1908, but the Spreckels officials were legally able to delay payment by getting a majority of the holders of the bonds to sign a waiver of

default. On the first of the year he paid the \$60,125 coupon that fell due on July 1, 1908. He defaulted, however, with the coupon of \$60,125 due January 1, 1909, and Thursday made a default with the July 1, 1909, coupon, amounting to \$60,125. The Oceanic therefore owes a year's interest on its bonds, amounting to \$120,250. It has an equity period of six months in which to pay the coupon falling due Thursday. The one which fell due January 1, 1909, is not being paid, as the majority of bondholders have signed a waiver of default for a year. The bonds amount to \$2,405,000, and bear 5 per cent interest. The company owes John D. Spreckels and his associates \$2,000,000 overdraft. This will be lost unless by some fortunate chance the company is rehabilitated.

The steamers Missourian, Nebraskan and Columbian of the American-Hawaiian line have been equipped with the submarine signal bell, and are now better able than formerly to place their position in foggy or thick weather.

A great many of the passenger steamers operating on the Atlantic Coast are equipped with the submarine signal system, but the American-Hawaiian liners are the first, outside of the United States lightships, to use this system on the Pacific Coast.

All the cannery vessels which cleared from San Francisco, with one exception, have reached their destination, but several from the Puget Sound fleet are still on the way.

The steamer Lehua arrived at Bristol bay on May 16th, and the bark B. P. Cheney and ship Sintram reached Bristol bay previous to June 1st. The other safe arrivals there were the barks Star of Iceland, Star of India, Star of Peru, Star of Chile, L. G. Burgess, Isaac Reed and James Nesmith, the ships Star of Italy, Bohemia, L. J. Morse, C. E. Moody, Tacoma and Indiana, the schooners Prosper and Premier, the barkentine Centennial and the steamers Nushagak, Kvichak and Kadiak.

Unlike most shipmasters, it matters little to the captain of the French ship Ernest Siegfried whether he secures a cargo or charter at a port of arrival, or has to return in ballast. The ship arrived in port from Glasgow with coke and pig iron, and after discharging the cargo lost no time in clearing at the Custom House of Caledonia. As long as the ship keeps sailing in ballast the French government will pay the cost of maintenance.

The American Commercial Company's chartered steamer Homer reached port July 3d from Pribilof, with no skins. The Homer reports that on June 22d, while at Dutch Harbor, a Japanese sealing schooner, with 60 seal skins aboard, entered port for supplies, but was refused everything, being forced to leave empty handed. The revenue cutters Peery and Rush were in port at the time.

The Homer sighted a large tree on June 23d in latitude 53.20 north, longitude 163.42 west, which is considered a menace in navigation.

C. Anderson filed a suit in admiralty in the United States District Court as owner of the German steamer Germanicus, against Bowering & Co., to recover the sum of \$895 as penalty provided in the ship's charter. Bowering & Co. chartered the steamer on April 30th for a trip to the West Coast of South America or Australia, but

when ready to receive her cargo she was delayed seven days.

The United States District Court awarded \$5,000 to Stanislaus A. Riley, administrator of the estate of Josephine C. Irelan, against the Vallejo Ferry Company. The Court also awarded \$5,000 to the same plaintiff in the suit against J. Graham Nevens and others as stockholders of the Vallejo Ferry Company.

The Court held that Josephine C. Irelan came to her death by drowning at Vallejo January 18, 1907, through the negligence of the defendant company's steamer in not giving the proper signal before leaving the slip.

The steamer Stanley Dollar has secured everything movable from the wrecked steamer Indiana, and no effort will be made to salvage the steamer further. The wreck is still holding together, and has not changed its position on the reef.

A report has been circulated that the gasoline schooner Charles Hansen was totally destroyed by fire off San Blas, Mexico. The vessel was owned by the Pacific Lumber Company, a Philadelphia corporation.

The city of Vallejo has refused the request of the Mare Island Navy Yard authorities to furnish police protection on the channel between Vallejo and the navy yard.

Extra shifts of workmen have been put to work on the cruisers California and Maryland, as orders have been received from Washington instructing the former to leave the yard by July 24th, and the latter by July 30th.

The flagship West Virginia will remain at the yards for sixty days to complete necessary repairs, while forty days work will be done on the South Dakota.

The steam schooner S. J. Alder, which was reported lost, has arrived at her destination, Bethel, Alaska, on July 1st. The steamer is engaged in carrying supplies to various missionary stations along the coast of Alaska.

L. Bleakmore, a stockholder in the California Navigation and Improvement Company, has named the directors of that company as defendants in an action to compel the restitution of \$54,000 alleged to have been taken from the capital to pay dividends.

The first alleged diversion of capital as dividends came May 31, 1908, when \$36,000 was said to have been taken. A year later \$18,000 was used for a similar purpose.

Sidney Newell, president of the company and president of the Stockton Savings Bank, P. B. Fraser, president of the Farmers and Merchants Bank of Stockton, J. F. Peters, Ward Smith, George B. Sperry, S. P. Elliott and E. R. Hedges were named as defendants in the suit.

The City Council and Board of Public Works of Oakland have decided to submit to the voters at once a bond issue project for waterfront improvements.

The Moore & Scott Iron Works were awarded damages against the steamer F. A. Kilburn for \$1,429.44 and interest yesterday in the findings of United States Commissioner Frank Krull filed in the United States District Court. The suit was for furnishings alleged to have been installed in the vessel by the iron works.

The North Pacific Steamship Company will place the steamer Newport and the power boat President in commission immediately. The vessels have been lying in Eureka for several months, but will be brought to San Francisco for repairs.

The Newport, until recently used as a tender in the operations on the wreck of the Corona, will be placed in commission and chartered to other companies.

A complete new set of boilers will be installed on the President, which was stranded on the Klamath for many months, and but recently floated and taken to Eureka for repairs.

In June the exports of wheat from San Francisco were only 480 centals, and only 362 centals for the corresponding month in 1908. During the harvest year ending June 30, 1909, the exports were but 16,941 centals, and the smallest in over fifty years. There was not a single cargo cleared last year, and the only quantity for Europe was 13,510 centals, and to Great Britain. The balance went to Pacific islands. From 1864-1865 until 1904-1905 the annual exports were never less than 1,000,000 centals. barley has taken the lead of wheat in the export trade of California, but even this cereal has fallen off considerably in late years. In June the shipments were 60,764 centals.

A Chinese company has chartered the steamer Persia, formerly of the Occidental and Oriental fleet operating between San Francisco and Hongkong, later in the service of the Pacific Mail on the Oriental run, and the vessel will be placed in the China and Mexican trade. The Persia has been out of commission in the port of Hongkong for two years, but is now in very good condition, having been overhauled lately.

The Union Oil Company has purchased the British tank steamer Pectan from the Shell Transportation Company of London. She is now enroute to San Francisco from Newcastle, having sailed July 2d. The Pectan is the largest oil tanker in the British merchant marine, and formerly operated between Russian, Chinese and Japanese ports, carrying oil out and returning with general cargo.

The new steamers Luseric and Numeric of the Andrew Weir & Company's Atlantic fleet will replace the steamers Gymeric and Inveric, which were recently withdrawn. They will have a limited accommodation for cabin passengers.

NORTHERN COAST NOTES.

Seattle.

The Shipping Commissioners' report for the district of Puget Sound for the month of June shows a considerable increase over the report for May and June of last year. The report shows a total of 3,916 men shipped, reshipped and discharged at the various ports of the district during the month, which is an increase of 782 men over June of last year, and an increase of 1,133 over May of this year.

McKenzie Bros. of Seattle are negotiating for the purchase of a 2,000-ton steamer at present in Chinese waters, and it likely will be operated in the Lynn Canal service next spring. The name of the steamer is being withheld temporarily.

The Alaska Mining and Development Company has chartered the steamer Jeannie to carry 175 laborers to Nome.

* * *

The Schubach-Hamilton Steamship Company has decided to place the steamer St. Croix on the excursion run to southeastern Alaska, calling at Sitka, Skagway and other ports along the route to the glaciers. Travel to Norton Sound, on which the St. Croix is now operating, is usually light during the midsummer, so her owners have scheduled her to leave Seattle with excursionists on July 25 and again August 8.

* * *

The repairs on the freighter Yucatan, which will carry a party of Eastern capitalists to Alaska this month, are about completed, and she will be ready for her trip about the middle of this month. Extensive improvements have made a yacht out of the steamer, with elaborate suites and every possible convenience. A large observation room has been established on the after deck for the use of the members of the party.

* * *

In the future all the Waterhouse steamers will discharge and load at Seattle instead of Tacoma, as formerly.

The Alaska-Pacific steamer Admiral Sampson, on her last trip to Seattle, delivered the first cargo of transcontinental freight under the new joint traffic agreement between the Chicago, Milwaukee & Puget Sound railroad and the Alaska-Pacific Steamship Company. The cargo was a carload of sugar brought from San Francisco and consigned to Butte, Montana.

* * *

United States Inspectors Whitney and Turner have found no one to blame for the collision between the schooner Oceania Vance and tug Sea Lion. The decision was expected, as it was the general opinion that the accident was unavoidable.

* * *

That the Oriental trade with Puget Sound is steadily improving after its long stagnation is shown by the capacity cargoes many of the steamers engaged in this trade are carrying.

* * *

The steamer Suveric of the Waterhouse fleet arrived recently with a record cargo of 7,000 tons of general merchandise. The Aymeric, of the same fleet, sailed July 1 with a full cargo.

* * *

The Nippon Yusen Kaisha liner Kaga Maru brought the first full cargo on the Japanese liners in many a month.

* * *

Speaking of the situation yesterday, Frank Waterhouse, of the Waterhouse Company, said: "There is an appreciable improvement in the freight moving East, and for the first time in months we are carrying full cargoes inbound. The westbound cargoes are still light and little improved, but the prospects are better than in some time past for the entire Oriental trade."

* * *

The excursion steamer Yosemite, which stranded on the rocks near Bremerton with 200 excursionists aboard, has broken in half from the battering of the waves.

The Yosemite is fifty-five years old, and her oak timbers are as sound as ever. She began a career as a

passenger boat on the Hudson river. In 1865 her engines were taken out, masts were put in and she sailed around Cape Horn to San Francisco. There she was reconverted into a steamer and for many years she plied on the Sacramento river. Lately the Yosemite has been in the excursion business on the Sound and when it met its fate it was as prosperous as in its Hudson and Sacramento days. The steamer was 267 feet long, registered 1,319 tons gross, was owned by C. D. Hillman of this city and valued at \$75,000.

* * *

Mat Meskell, formerly a sailor on the coastwise schooner Snow and Burgess, has filed a libel against that vessel in the Federal Court for the sum of \$1,000 as damages for inhuman treatment. Meskell alleges in his petition that he shipped at San Francisco for Port Ludlow and while en route he was seized with an attack of appendicitis, that the captain refused him medical aid on board, and, although passing Port Townsend, would not stop to leave him at a marine hospital. At Port Ludlow he was taken off in a critical condition and eventually gained admission to a Seattle hospital, where he was confined several weeks, recovering from an operation; that the captain deducted four days' pay for the time he was off duty, although having full knowledge of his illness.

* * *

The steamers Yale and City of Anacortes, which formerly made Seattle their home port, will in future make Anacortes their home port and will operate between San Juan, Friday Harbor and Roche Harbor giving a daily service.

* * *

A. W. Wolf has filed suit against the International Stevedoring Company of Seattle for damages to the amount of \$1,000. In the complaint Wolf alleges that he purchased 72 shares of stock valued at \$7,200 from R. H. Buddy and that said transfer was not recorded on the books of the company. Suit was brought against this company two weeks ago to have a receiver appointed to handle the affairs of the concern.

* * *

The Hall Brothers' Marine Railway and Shipbuilding Company has filed a libel against the steamer Victoria for a balance of \$12,485.71 with interest and costs. Amount asked is for work performed and material furnished in repairing the Victoria between March, 1909, and June, 1909.

* * *

Five sailing ships from Puget Sound and British Columbia have arrived safely at Bristol Bay. These are the bark Levi G. Burgess, from Ladysmith; schooner Prosper from Port Ludlow; ship Charles E. Moody, from Anacortes; bark Isaac Reed, from Ladysmith, and bark James Nesmith, from Bellingham. The date of arrival is not given. These vessels sailed in April with cannery supplies and will return in the fall with the pack.

* * *

Beckman Winthrop, acting secretary of the navy, in replying to the protest of the shipowners on Puget Sound against the practice of the Government in shipping coal from the Atlantic Coast to the Puget Sound and Mare Island navy yards, in foreign bottoms, says in part: "It must be remembered that the Navy Department exists for the integrity of the fleet, and that it must keep the fleet in

efficient condition. It is its uniform policy to give the preference always to articles of American production. It is thought the Department need not assure you of its entire sympathy with the United States shipping interests, but it does not see how it can fully ameliorate the conditions which you complain of. Former President Roosevelt and President Taft have decided that when an American vessel can transport coal and other naval supplies at a rate not more than an advance of 50 per cent over and above that charged for transportation by a foreign bottom, the order shall be given to the former. That condition has not been met this spring, and especially is that true at the present time, when coal is being shipped to the Pacific Coast at \$3.35 per ton, though some shipments have been made and probably others will be made under the American flag. Instead of twenty, the Department has chartered eight ships for Puget Sound and four for the Mare Island navy yard, the former to arrive from June 20th to September 10th and the latter during August, and it would scarcely seem as if twelve ships arriving during two months will utterly disorganize the shipping business of the Pacific Coast, the total number of shipments of coal being not in excess of 60,000 tons."

Approximating figures for the month of June, the receipts of the Seattle Customs House for the fiscal year ending with the close of business June 30 totaled \$1,051,119. While the collections for the last twelve months are less than the previous fiscal year, the showing is good, considering general conditions.

Collections include duty paid on imports, tonnage tax, fines and other sources of income. During the last fiscal year, receipts of the local office averaged \$87,593 per month, or more than \$3,000 for each working day.

June makes the best showing of the entire twelve months. The receipts for the last thirty days are estimated at \$133,000, which is \$21,000 in excess of the next best month, last February. This, state customs officers, was not due to any exceptionally heavy importations but to a gradual improvement in general business conditions. Customs receipts are regarded as a fairly accurate barometer of business.

The collections at Seattle by months, as taken from the reports of the collector of customs, F. C. Harper, were, during the fiscal year just ended:

July	\$ 85,213 06
August	68,146 76
September	79,106 36
October	95,907 61
November	68,718 24
December	68,508 41
January	65,665 07
February	112,801 64
March	78,247 30
April	95,904 17
May	99,900 48
*June	133,000 00

Total \$1,051,119 00

*Approximated.

From the above table it can readily be seen that business has improved materially during the first six months of the present year as compared with the first half of the fiscal year. October, 1908, with \$95,907.61, makes the best showing of the first half of the Government's year. In the second half two months are well above the \$100,000 mark, while April and May are close

to this figure. June made a splendid gain over June, 1908, when the receipts were \$95,447.09.

Probably the best proof of the improvement of business during the last half of the fiscal year over the first six months is given by the following:

Total collections, July 1 to December 30, 1908, \$465,600.44; monthly average, \$77,600.

Total collections, January 1 to June 30, 1909, \$585,518.56; monthly average \$97,586.

This comparison indicates a monthly gain of practically \$20,000 of the second half over the first, which means a daily increase of close to \$750.

Portland.

Consul Aderberg of Norway, stationed at Portland, has made arrangements with a surety company whereby they will assume the risk heretofore taken by the steamship companies in allowing their Chinese crew shore leave in United States territory. The surety company will forfeit the sum of \$500 to the United States for every Chinese in the crew who should make his escape as a result of his shore leave.

The Norwegian steamship Rygja Selja, under charter to the Portland and Asiatic Steamship Company to run between here and Hongkong and way ports for the next three years, will work under the new arrangement on their return to Portland.

The plan of insuring the return of the Chinese has never been tried before, and the outcome will be watched with interest by shipping people. If it proves practical the method will doubtless be adopted on all steamers operating with Chinese crews between the Pacific Coast and the Orient.

The San Francisco and Portland Steamship Company is considering the construction of new and modern docks on the sites occupied by the Ainsworth and Alaska docks, where all the steamers of that company dock. High water this season and the ravages of time for several decades have had their effect on the structures, and new piers are absolutely necessary.

The German ship Oregon, which sailed February 2d from Portland for Falmouth, with 105,802 bushels of wheat, arrived July 6th. The French bark Desaix, which sailed from Portland for Queenstown with 109,138 bushels of wheat, arrived July 6th.

The steamer M. S. Dollar will enter the lumber carrying trade between Portland and China with the steamers Bessie Dollar and Hazel Dollar of the same fleet. The three steamers will be placed on a regular schedule between this port and Shanghai and Hankow, China, with lumber to be used in railroad construction, returning via Japanese ports with Oriental merchandise to San Pedro.

The steamer Bessie Dollar, which is a sister ship to the M. S. Dollar, is now at Linnton loading lumber for China. The Hazel Dollar is now in China receiving a cargo of merchandise for San Pedro and San Francisco, and upon discharging will immediately sail for this port to operate on the new schedule.

The steamer Hunter, which was formerly a bar tug at the mouth of the Umpqua river, is now operating on Puget Sound in the freight and passenger service, after having been remodeled at a Portland shipyard.

Two Portland men have purchased the hull of the old steamer *Jessie Harkins*, which went out of commission six months ago, fitted it with a cabin and installed machinery, intending to place her in the passenger business to nearby points. Captain O. W. Hosford, from whom the *Jessie Harkins* was purchased, after placing the boat out of commission, built another one and christened her the *Jessie Harkins*. The owners of the old *Jessie Harkins* intended to rechristen her the *Butterfly*, but the customs authorities claim she must be registered as *Jessie Harkins*, according to a United States law.

* * *

The names *Bear* and *Beaver*, suggested by F. K. Masters of Portland, were selected by the San Francisco and Portland Steamship Company for the two new steamers now in course of construction in the East. The steamers will operate between Portland and San Francisco.

The original vessel *Beaver* was the first steamer to enter the Pacific Ocean, coming in the year 1836. She was in continuous service until 1890, at which time she was wrecked on Vancouver Island.

* * *

The port of Portland commission has authorized the selling of \$60,000 worth of towage and pilotage bonds. This is the second issue, the first being for \$50,000. These funds are for the purpose of reimbursing the general fund for the building of new tugs and pilot boats.

Exports for Year.

	Value.
Wheat, 6,350,033 bushels	\$5,791,304
Flour, 552,423 barrels	2,160,681
Barley, 821,510 bushels	549,485
Lumber, 82,688,790 feet	1,043,677
Miscellaneous freight	209,817
Total value	\$9,754,964

Of the 107 vessels which were required to carry freight from Portland during the fiscal year ending June 30, 52 were steamships, each close to 7,000 tons burden, the greatest fleet of the sort ever to come here in the course of 12 months. Included in the list are the regular Oriental liners which ply to Hongkong and way ports. It is the first time in the history of the port that the steam tonnage has exceeded that of the windjammers.

About two-thirds of the export wheat crop was handled by tramp steamers. Many of them had followed the warships around here from the Atlantic Coast with coal, and they were chartered to transport wheat to European ports. It is probable that a number of years will elapse before so many steamers will be used in the grain trade out of here another season. Had sailing vessels been employed altogether it would have taken a fleet of at least 175 for moving the wheat, lumber, flour, barley and miscellaneous freight dispatched from Portland to the markets of the world. Stationed half a mile apart such a fleet would reach from Portland to the sea.

While the wheat exports from Portland for the year amounted to only 6,350,033 bushels, as compared with 12,973,977 bushels for the season of 1907-1908, they were in excess of the shipments from the combined ports of Puget Sound by about 2,000,000 bushels. The decrease in this class of shipments from the Pacific Northwest is attributed to two causes—a lighter crop than that of the previous year, and the high price of the cereal. Because of the latter factor a bigger percentage of the crop than

usual was sent to the Eastern distributing centers of the United States.

Including the coastwise business the lumber shipments for the fiscal year comprised 163,440,990 feet, of which 80,752,200 feet went to California. The off-shore lumber shipments for the previous year amounted to 102,971,515 feet of fir.

While in some respects the year just ended did not make the showing which had been expected, the season now opening, it is anticipated, will be a record-breaker so far as cereal exports are concerned. It is explained that the crop will be far above the average, and two railroads instead of one will be hauling wheat into Portland this year. For that reason it is believed the greatest quantity of wheat ever shipped from here will be set afloat in the local harbor for distant markets this year.

Tacoma.

On July 2d the *Tacoma Maru*, the first vessel on the new service of the Osaka Shosen Kaisha between Hongkong and Tacoma, left Kobe for Hongkong to inaugurate the service. On the completion of the whole fleet the service will be a fortnightly one. The general route will be from Hongkong, via Shanghai, Moji, Kobe and Yokohama, occasionally calling at Yokkaichi and Shimidzu, to Tacoma, Wash., where the service is to connect under the sole traffic arrangement with the Chicago, Milwaukee and St. Paul Railway Company of Chicago, Ill., who are now extending their new line to the Puget Sound.

The service will comprise six new steamers, augmenting the company's present fleet of 127 vessels. They will be each of 12,000 tons displacement (3,833 net), and of a maximum speed of 15 knots per hour. After the launch of the *Tacoma Maru*, the other five vessels follow at short intervals. The latest appliances have been adopted in the general construction of the steamers, as well as on the gear and accommodation for sundry cargo, silk and other valuables. Extensive docks, warehouses and other terminal facilities, too, are nearing completion at Tacoma, which, it is claimed, will practically have no rival on the Pacific Coast. The company claims that their arrangement will amply ensure an absence of possible damage to cargo, as well as its rapid handling and transportation.

For the handling of local cargo, such as those destined for or arriving from various ports in the Sound, British Columbia and other Pacific Coast points, the necessary arrangements have been concluded with the local steamships and railroads, and every important quarter is now equipped with efficient agencies.

The following particulars of the new vessels are of interest: The builders are the Kawasaki Shipbuilding Company, Ltd., of Kobe. The length of the boats, which will be twin-screw, will be 410 feet, greatest width 51 feet 3 inches, and depth 32 feet 6 inches. They will have a displacement of 12,000 tons, with a gross registered tonnage of 6,178 and a net register of 3,833 tons. They are classed 100 A1 at Lloyds. Their speed will be 15½ knots. The vessels will be electrically lighted and steam heated. They will be two-decked under the Japanese government's and Lloyds' three-deck rule, with forecastle, long bridge deck and poop, steel deck house on the bridge and boat decks. There will be two masts, fore and aft rig. A cellular double bottom will run throughout with a deep tank aft of the engine room, while there will be seven water-tight and two screen bulkheads, wide-spaced tubular pillars, steel upper and main decks and steel lower deck in the No. 1 hold. There will be two sets of triple ex-

pansion engines, and the load draft of the vessels will be 25 feet 8 inches. Passenger accommodation will be provided for 200 steerage berths, while a limited number can be accommodated in the cabin. Silk, treasure and parcel rooms will also be installed. An extra cargo derrick capable of lifting 30 tons will be fitted on the vessels, besides the ordinary cranes.

The British bark *Inverness-shire*, the last grain carrier to load at Puget Sound this season, put into Valparaiso for repairs. Meager details have been received, stating that fire broke out in the hold of the vessel while she was at sea, and a portion of the cargo was destroyed.

The *Inverness-shire* loaded at Tacoma 140,410 bushels of wheat, valued at about \$150,000, and sailed March 26th to Queenstown for orders. She was out 94 days when reported from Valparaiso.

The British ship *Agnes Oswald*, another grain carrier which loaded at Tacoma, arrived at Cork June 27th. There is now but two of last season's Puget Sound grain fleet en route, the *Carradale*, which is not due for a month and the *Inverness-shire*.

The *Agnes Oswald* left Puget Sound December 29th and was almost six months negotiating the passage. She was beaten by several days by the British bark *Archibald Russell*. None of last season's wheat fleet from Puget Sound has done fast sailing with the exception of the *Genevieve Molinos*, *Kildalton* and *Clyde*, which arrived under 124 days. A majority of the wheat carriers have been more than 150 days out, several having taken between 175 and 180.

The *Osaka Shosen Kaisha*, which started service between the Orient and Tacoma in conjunction with the Chicago, Milwaukee and Puget Sound Railroad, on July 2d, by the sailing of the steamer *Tacoma Maru* from Hong-kong, has become a member of the Trans-Pacific Traffic Bureau. The bureau is composed of the various steamship lines engaged in the regular trans-Pacific traffic, and was formed for the purpose of eliminating ruinous competition and rate-cutting. Although it is now certain that the steamship line will not indulge in rate-cutting, it is thought that the Chicago, Milwaukee and Puget Sound will make a startling reduction in through freight from the East to the Orient.

Victoria, B. C.

The *Nippon Yusen Kaisha* will, in the near future, withdraw two of their six steamers which are now engaged in the trans-Pacific trade owing to the decline of freight offerings.

The steamers *Shinano Maru*, *Lango Maru*, *Aki Maru* and *Kaga Maru* will hereafter maintain the company's service on the Pacific.

The steamer *Ceylon Maru*, now outbound from Victoria, will not return, and the steamer *Tosa Maru*, now on the way from Yokohama, will not accept freight for China on her outward voyage, as she will be withdrawn upon returning to Japan.

The North German Lloyd Steamship Company will, on the completion of the Panama Canal, establish a round-the-world steamer service, with the Pacific terminal at Victoria. Steamers of the *Princess Alexis* and newer *Buelow* class, now operating from Hamburg and Bremen to the Orient, via the Suez Canal, stopping at Yokohama,

thence returning homeward via the Suez, will, at the opening of the Panama Canal come from Yokohama to Puget Sound, thence to Germany via Panama.

Because of the insistent demand for the improvement of the Canadian-Mexican service, the Dominion Government will increase its present subsidy of \$50,000 by one half. The government will make a test shipment of freight from Montreal to Victoria, via the Canadian-Mexican line and the Tehauntepec Railroad, it being claimed that 20 per cent can be saved by handling Eastern Canadian goods in transit to British Columbia by this route, instead of over the Canadian Pacific Railroad.

S. G. McKenzie, senior member of the firm of McKenzie Bros. of Vancouver, B. C., operators of the steamers *Rupert City*, *Transit* and *Henrietta*, announced yesterday that his company would next spring operate a line of three passenger steamships between Seattle and Skagway, via Vancouver and Prince Rupert.

Negotiations have been in progress for some time, he said, for the purchase of a 2,000-ton passenger steamer to alternate with the *Rupert City* and the *Henrietta* on the run. Other than saying the vessel is now in Chinese waters, he would not disclose her identity.

SOUTHERN COAST NOTES.

San Pedro.

The records compiled in local steamship offices show that the year 1908, 82,200,000 feet of lumber was received in through the local harbor. This was brought here on 101 steam vessels and twenty-four sailing vessels. In addition 20,000,000 feet was brought here on five log rafts, averaging 4,000,000 feet to the raft. In 1907 the lumber receipts were 68,121,000, but nearly all this lumber was used in San Diego and neighboring towns.

The Pacific Navigation Company, with headquarters at Guaymas, Mexico, has secured a concession from the Mexican government to establish a steamship line between Mazatlan, Mexico, and San Diego and later to San Pedro and San Francisco.

The Pacific Navigation Company now operate between Salina Cruz and Mazatlan, carrying coastwise freights that are transported to Puerto, Mexico, and thence across the isthmus over the Tehuantepec railway.

The Union Oil Company of California have acquired about two-thirds of the stock of the Outer Harbor Dock and Wharf Company and will in the near future start work in developing what is known as miner fill in the outer harbor. A channel 200 feet wide and not less than 30 feet deep will be dredged around the fill.

At the present time only the smaller vessels of the Union Oil Company enter San Pedro harbor, but upon completion of the dredging operations any one of the fleet will be able to navigate in the harbor.

Capt. Randolph H. Miner is president of the Outer Harbor Dock and Wharf Company, and conceived the fill project; W. L. Stewart is vice-president, and Giles Kellogg, secretary. In addition to the officers the directorate includes J. S. Torrance, Lyman Stewart, F. A. Garbutt and W. W. Orcutt. With the exception of Capt. Miner, these gentlemen also are on the directorate of the oil company.

Custom Officer Sheldrick has just issued the custom house report for June at Redondo Beach, which sets a new record for shipping at this port. Here is the report: Imports, 6,540,000 feet of lumber, 2,600,000 shingles, 28,809 railroad ties, 40,700 barrels of oil, 25,224 lineal feet of piling, 2518 tons of merchandise. Arrivals, 52 vessels, including 48 steamers,

3 schooners, 1 barge, with a total tonnage of 48,610 tons, manned by 2499 men. Arrivals 1182 passengers. Exports, 17,000 barrels of oil, 364 tons of merchandise. Departures, 49 steamers, 4 schooners, 1 barge, 49,169 net tons, crews, 2909. Departures 1445 passengers.

HAWAIIAN ISLANDS NOTES.

Honolulu.

The Interisland Steam Navigation Company have increased their capital stock from 1,500,000 to 2,250,000, the increase to be returned to the stockholders in the shape of a stock dividend.

The American bark Alden Besse, which was recently chartered to carry Oahu ties to the coast, has surrendered her charter. Oahu ties, which are extremely heavy, will not float and the Alden Besse being a very old vessel could only take half a cargo of them. The weight of a full cargo caused a leak in the schooner Prosper which necessitated dry-docking for repairs. The bark St. Katharine and the schooner Balboa have tie charters.

SHIPBUILDING NOTES.

Union Iron Works.

Steamers Alaskan, City of Sydney and Buford were on Hunters Point drydock for cleaning, painting and general repairs.

Steamer Santa Maria at works for new castiron propeller hub.

Schooner Columbia was on floating dock July 1st for cleaning and painting.

Steam schooner Newberg at works for new propeller shaft and general repairs.

Steamers Columbia and Washtenaw are receiving engine, boiler and hull repairs.

Steamer Aztec at works for general repairs.

Fitting new shaft and repairing wheel on the J. M. Donahue.

Temporary repairs have been completed on the S. O. barge No. 91. Bids have not yet been opened for permanent repairs.

The Union secured the contract to construct 1,200 fire hydrants for the high pressure system in accordance with specifications prepared by the Department of Public Works of San Francisco. The hydrants will cost \$119.74 each.

Moore & Scott.

The E. J. Dodge Lumber Co., operating the Newburg mill and woods in this county, have sold their steam schooner South Bay and it is now on the ways in Oakland being converted into a suction dredger for use in reclamation work at San Pedro harbor.

The ferry steamer San Pablo was placed on the ways for repairs, cleaning and painting.

Work is progressing on the steamer South Bay at the yards of the Moore & Scott Iron Works, where this vessel is being converted into a dredger for work on the San Pedro bar.

The Government has ordered the installation of oil tanks for fuel on the quarantine tug Argonaut, and this vessel will proceed at once to the yards of the Moore & Scott Iron Works to have its installation completed. The work will require about three weeks.

* * *

All bids have been rejected on the Government tunnel boat for Alaska.

* * *

Schwartz Bros. of San Francisco, coffee importers, will

in the near future let a contract for the construction of one coffee lighter.

* * *

Hamburger, Polemus Co of San Francisco will also build a coffee lighter in the near future.

* * *

During the last two months Atlantic Coast shipyards have taken contracts for 25 steamers, of which 12 are for the Atlantic, 10 for the Pacific, two for inland navigation and one for the oversea traffic. The orders for the Pacific Coast boats include three steamers for the American Hawaiian Steamship Company, one oil tanker for the Associated Oil Company, two passenger steamers for the San Francisco and Portland Steamship Company. The Pacific Mail Steamship Company is also contemplating the building of four steamers for the Panama run. The Alaska Steamship Company of Seattle has intimated that they will award contracts before the close of the year for three steamers to cost about \$700,000 each. The revival of shipbuilding will add about 50,000 tons dead weight capacity to shipping on the Pacific Coast at an outlay of \$5,000,000.

* * *

The Southern Pacific Railroad Company launched their new river steamer Navajo July 1 from the West Oakland yards. The steamer, which is being built for the river trade between Sacramento and San Francisco, is the first vessel of its kind to be constructed by the company since 1880, when the Apache and Modoc were built. Construction was begun on the Navajo August 5, 1908. The steamer will be the largest operated by the Southern Pacific Company and will be a valuable addition to the river traffic. She is 250 feet long, forty-four feet beam and the depth of her hold is more than nine feet, and is equipped with 1,300 horsepower tandem compound engines and is expected to make a speed of eighteen knots an hour. She will accommodate sixty passengers and is to cost when completed \$100,000.

* * *

The Heffernan Engine Works has secured the contract for repairing the steamer Olympia, damaged by Bering Sea ice on her last trip to Cordova. The survey disclosed the fact that one plate was crushed and several frames were bent near the bow. The repairs will cost \$10,000.

* * *

Work has been started on the two submarines at the Moran yards of Seattle. It was necessary before starting to secure material from the East, but from now on the work will be rushed. Specially built sheds will conceal the construction of the submarines from the public, as the plans are secret. The contract calls for completion in eighteen months.

Several naval and shipbuilding experts are on the ground supervising these contracts. F. W. Hibbs, a well-known constructor, is here as representative of the Electric Boat Company, owners of the patent and for whom the Moran company is doing the work. Lieut. Ruhm, U. S. N., is representative for the Government, while Lieut. C. H. Hays, U. S. N., has been detailed as inspector of equipment.

* * *

Seattle's new fireboat Duwamish was launched at Richmond Beach July 3.

When the Duwamish went into the water it marked the launching of a fireboat that has the largest fire-fighting capacity of any vessel of a similar character that has ever been designed in this or any other country, carrying

a capacity of 9,000 gallons per minute at a 200-pound pressure, with every pump and pipe designed to work at a 300-pound pressure if a system of either salt or fresh water mains is installed.

The only place in which wood is used in the construction is on the deck. It was built to be available for fire-fighting purposes at the least delay at any point on Elliott Bay. Over all, it is 120 feet long, has a 28-foot beam, and has a molded depth of 15 feet.

The steel hull was built by the Puget Sound Shipbuilding Company. The machinery will be installed by the Fulton Machine Works. This equipment will consist of four Mosher boilers and three American-La France pumps.

The boat is equipped with twin screws, will have a speed of about twelve miles an hour, and will be equipped with an entirely modern system of fire-fighting apparatus, including one Monitor on the pilot house with a five-inch tip, one on the after-house with a four-inch tip, and six on the deck with two-inch tips.

In addition to this, the boat will have one sixteen-inch discharge outlet for connection with a high pressure main service, and sixteen 3½-inch hose connection for uptown service.

The Duwamish was designed by McAllaster & Bennett, and the contract for its construction was awarded by the Board of Public Works last August. While the segregated contracts were all signed up in the same month, actual work on the hull was not started until some time in February, owing to the fact that the steel mills were not able to furnish material of the particular quality and design before that time.

Within the next thirty days the new police patrol boat being turned out in the yards of O. M. Graham for Portland harbor will be ready for active service. The craft will be completed two weeks earlier than is specified in the contract. Such is the report given out at the yards. The boat will be 37 feet long, 7 feet wide and 2 feet draft. She is to be equipped with a 16 horsepower Speedway gasoline engine, which is expected to drive her along at a rate of 14 knots an hour. Those who have looked her over say she will be one of the best and finest boats of her size on the river. She will have space for the accommodation of 50 passengers, if it should be determined to utilize it. But the business of the patrol boat will be to run up and down the harbor in charge of police officers, looking for pirates or other lawbreakers. She will be in commission day and night, and great things are expected of her. Harbormaster Speier will probably direct her movements.

Bids for the construction of the Government steamer for the use of the quartermaster's department at Seattle have all been rejected on the grounds that they were in excess of the amount available—\$40,000. Tenders were submitted by eight firms from Puget Sound and Portland. The lowest bid received was \$57,000. The new steamer is designed to replace the Cartwright, now in service out of Seattle.

Proposals for constructing by contract one fleet collier will be received at the Navy Department until 12 o'clock noon, Tuesday, August 31, 1909, when they will be publicly opened. Circulars defining the chief characteristics of such vessel and plans and specifications for her construction are now ready for distribution among prospec-

tive bidders. Forms of proposal and contract may be had on application to the Department after August 1st. Beekman Winthrop, Acting Secretary.

The Barker-McLean Launch Company of Eureka have let a contract to Carl Lundstrom for the construction of a passenger steamer to ply on Humboldt Bay. The new steamer will cost about \$10,000. She will be 67 feet long, 16½ feet beam and 8½ feet depth at the hold. She will carry 50 tons and will draw 6 feet aft.

Compound engines are being built at the United Engineering Works in San Francisco and will be forwarded to Eureka as soon as the new boat is ready for them. These will provide her with 200 horsepower and will give her a speed of 12 or 13 knots.

Oil burners will be installed and a contract has been let to Langford Brothers of Eureka for necessary equipment.

The Port of Portland Commission, which, on July 1st took the towage and pilotage service at the mouth of the Columbia river, has decided to build a tug like the Wallulu, owned by the port. Bids will be called for shortly. The boat will cost in the neighborhood of \$125,000 and will be ready for service late the coming fall.

S. S. KOREA.

This issue we give as our frontispiece a picture of the S. S. Korea, one of the finest ships that cross the Pacific ocean, and one of the largest that flies the Pacific Mail flag.

The Korea is 572 feet 4 inches over all, 550 feet between perpendiculars, 63 feet beam and 41 feet 10 inches depth at the center. At the load draft of 27 feet the displacement is 18,400 tons. The cubic capacity for cargo is 510,466 cubic feet. The gross tonnage is 11,300, with 7,285 tons net.

Power is derived from six double end and two single end boilers, which furnish steam at 200-pound pressure to run the engines. The engines are twin inverted direct 4-cylinder quadruple expansion type, with cylinders 35, 50, 70 and 100 inches diameter and 66-inch stroke, turning two three-blade propellers 19.5 feet diameter and 25 feet pitch, 88 revolutions per minute. The total indicated horsepower is 17,900, which gives the vessel a speed of 20 knots.

The auxiliaries include 22 pumps for various purposes, 8 cargo winches, windlass, steam steering engine, engineers' workshop, complete refrigerating set (2 eight-ton machines) and an electric light outfit capable of carrying 1,700 lights of 16 candle power.

The Korea has accommodations for 200 first class passengers, 54 white steerage and 1,144 Chinese steerage. The crew accommodation is for 236 men.

The improvement of the national guard of California is in the hands of a committee composed of citizens representing various civic organizations of San Francisco. The movement is endorsed by Governor Gillett and the Secretary of War. It is the intention of the committee to organize eight companies of coast artillery of seventy-five men each. Attractive inducements are offered to those eligible to the service.

Representative Spigth of Mississippi has introduced a bill to insure the safe and efficient handling, and to prevent undermanning and unskilled manning of American vessels.



YACHTING SECTION



AWL IOLA, while on its way to San Pedro, split her boom and the crew were compelled to enjoy the Fourth at Santa Cruz.

★ ★ ★

Commodore Carl Strom of the Aeolian yacht Club, was married Sunday, July 11, to Miss Nora Hansen, an Alameda girl. The ceremony was performed on board the Commodore's yacht Nautilus while

lying off Black Point, surrounded by the entire fleet of the Aeolian Club.

* * *

Four yachts which formerly belonged to the Corinthian Club, are now enrolled in the Aeolian Club. They are Emma, Edna, Speedwell and Genesta.

* * *

Lloyds has issued its new American yacht register, which contains the particulars of 3,355 yachts in the waters of the United States, Canada and the West Indies, with the names, addresses and clubs of 3,200 owners of these vessels.

That yachting is by no means declining but is yet one of the most popular and flourishing of American sports is evidenced by this book.

* * *

In the international contest for the James Dunsmuir cup, the Vancouver yacht Alexander, the Canadian representative, withdrew, alleging that Spirit II of Seattle, the challenger, measures over the 29-foot class. Spirit II sailed over the course alone and will claim the trophy. The first race of a series of three was won by the Alexander.

The Puget Sound yacht clubs are considering the formation of a new Pacific International Yachting Association, which will take in Japan and Australia. This project was broached following the breaking off of relations between the Vancouver and Puget Sound yacht clubs in the international race for the James Dunsmuir cup.

* * *

It is said that Robert Guggenheim, the donor of the trophy in the New York to Seattle automobile race, will offer a \$5,000 cup as an annual trophy for the new association in the international races.

* * *

It is understood here that the Royal Ulster Yacht Club has decided to invite the New York Yacht Club to disclose definitely on what conditions a challenge for the America's cup would be received and what concessions would be granted. This step will be taken with a view of an early challenge if the reply is at all favorable.

It can be stated that the attitude of the New York Yacht Club has undergone no change since two years ago, when a challenge by Sir Thomas was turned down on the grounds that the conditions for the America's cup contest were provided by the deed of gift, and that the club had no right to alter them.

* * *

River cruising has become more popular than ever this

year and there are few of our local yachtsmen who are not including this delightful river trip on their summer's cruising. During the last two weeks there have been no less than ten yachts and as many motor boats from our local clubs on the Sacramento and San Joaquin rivers, and on all sides we hear of parties being formed for extended river cruises. The trip to Sacramento is probably the most popular owing to the beauty of the scenery and the possibilities of obtaining supplies en route. Then, too, there is always the warm welcome awaiting the visiting yachtsmen at the spacious club house-boat of the Sacramento Boat Club.

The bass fishing on the Sacramento river is particularly good this year and those who are contemplating this trip and are fond of fishing should go well armed with bait and tackle, using our ordinary bay clams with much success, and there have been some record catches with this form of bait.

If you are going to make this trip don't forget that an awning and plenty of mosquito netting are absolutely necessary for comfort. The river is falling now at the rate of about nine inches a day and although the current is stronger than usual now, little difficulty will be experienced in making Sacramento. We would advise those without too much time on their trip to go up by way of Steamboat Slough, as the trees on the old river from Walnut Grove to Courtland have grown rather tall and cause considerable difficulty in getting sufficient breeze to carry a yacht through Paradise Cove.

* * *

The California Yacht Club will hold its race for the Wallace trophy on August 1st, and as the yachtsmen have evinced much rivalry for the trophy in former seasons, it is thought that there will be a large number of entries.

* * *

Captain Robbins' fast cruiser Lillian, S. F. Y. C., has just returned from a three weeks' river cruise. Lillian is one of the speediest cruisers on the bay and can show her heels to the majority of the local motor boats.

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The August R. T. Brandes cup race will be held over the channel cruise, Sunday, August 1st.

* * *

The yacht Idler, owned by Shaw and Martin, had her guardboard rammed by a sunken dolphin in Oakland estuary.

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Captain Tom Kendall is having his speedy sloop Alert thoroughly overhauled for the ocean race to Santa Cruz on August 8th. The Alert has been fitted out with a new suit of sails.

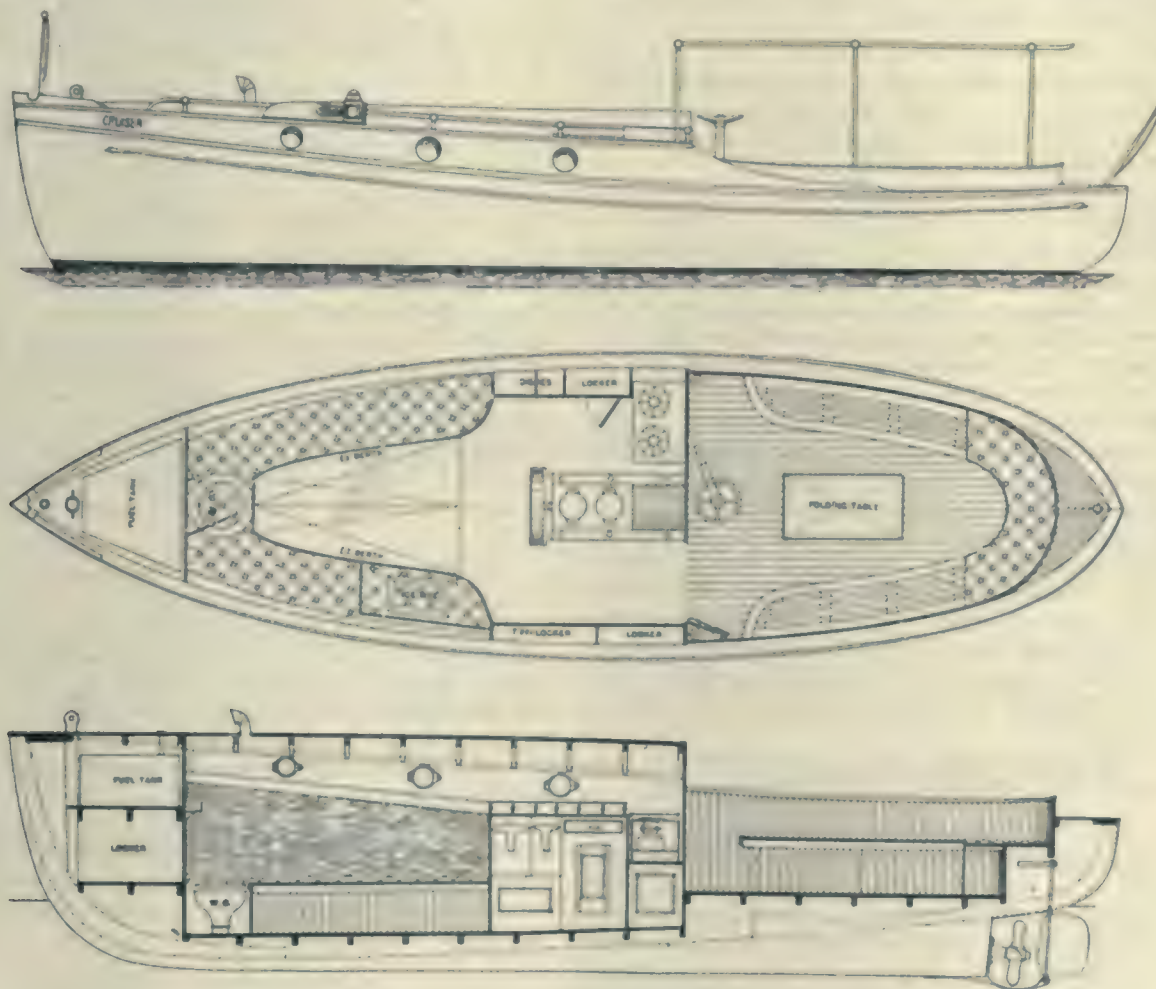
* * *

The California Yacht Club will move to the lower bay in a very short time.

We are very sure that the club is making no mistake, as the location is one that is convenient to persons living about the bay. We wish them success in their new venture, and are sure that the fleet and membership will be greatly enlarged. Yachtsmen on the east side of the bay will make no mistake in investigating this new move by the club, as it will bring very beneficial results.

The accompanying drawings show the general arrangement and plans of the cruising launch built for Dr. A. P. Matson of San Francisco, recently designed and built at the plant of P. Swanson at Belvedere.

Her dimensions are: Length over all, 25 feet 6 inches; beam, 7 inches; draft, 2 feet 6 inches; freeboard forward, 3 feet 9 inches; stern, 2 feet and least 21 inches, with 5 feet head room in the cabin. Equipped with a 10-horsepower Doman engine, with speed of 10 miles per hour, controlled from outside. The boat is a splendid example of all the latest improvements in cruising launches for harbor and river purposes, or a trip outside; contains adjustable seats in the cockpit, with awning above. The cabin is finished in oak and white cedar, has lockers and folding table and accommodations for three persons. The upholstery is in buff corduroy.



Dr. Matson will spend his vacation during the entire month of August in his new launch cruising about the waters tributary to and emptying into San Francisco Bay.

San Francisco Yacht Club, H. A. Russel, secretary; J. R. Hanify, commodore; club house, Sausalito. List of events to and including August 8.

Saturday, July 17—Annual regatta; commodore's cup.
 Sunday, July 18—Aquatic sports, club house.
 Wednesday, July 21—Members' night, club house. Billiards and cards.
 Saturday, July 24—Open.
 Sunday, July 25—Open.
 Wednesday, July 28—Ladies' night at club house (informal).

Saturday, July 31—Cruise to Paradise Cove.
 Sunday, August 1—Clam bake at cove (full moon).
 Wednesday, August 4—Members' night at club house; billiards and cards.

Saturday, August 7—Open.

Sunday, August 8—Open.

Corinthian Yacht Club, Dr. J. L. McMahon, secretary; W. Frank Stone, commodore; club house, Belvedere, Cal. List of events to and including August 8.

Saturday, July 17—Open.

Sunday, July 18—John Hammersmith Trophy Handicap race.

Saturday, July 24—Martinez.

Sunday, July 25—Return.

Saturday, July 31—Open.

Sunday, August 1—Open.

Saturday, August 7—Santa Cruz race.

Sunday, August 8—Santa Cruz race.

California Yacht Club, E. A. Chamberlain, secretary; E. S. Broadwater, commodore; clubhouse and anchorage,

Brooks Island. List of events to and including August 8.

Saturday, July 17—Open.

Sunday, July 18—Wallace Trophy race.

Saturday, July 24—Cruise to California Cove.

Sunday, July 25—Return.

Saturday, July 31—Open.

Sunday, August 1—August R. F. Brandes race.

Saturday, August 7—Rendezvous, foot of Hyde street.

Sunday, August 8—Cruise to Bolinas Bay.

Golden Gate Yacht Club, W. Carlisle, secretary; F. Mayno, commodore; club house, Sausalito. List of events to and including August 8:

Sunday, July 18—Race from Vallejo.

Sunday, July 25—Open.

Sunday, August 1—Clam bake.

Sunday, August 8—Race to Santa Cruz.

CHARTER MARKET.

Total tonnage at present en route to Puget Sound amounts to 85,258 tons. This includes several tramp steamers, which have been chartered by the Government to bring coal to the navy yard, Puget Sound, and a large fleet of sailing vessels that have been headed this way for some time.

Compared with the same time last year, the fleet bound for the Sound is slightly larger, but much less than the amount of tonnage listed for Puget Sound two years ago. These are the figures: 1908, 75,327; 1907, 104,134; 1906, 89,076.

In addition to Puget Sound tonnage, that bound for British Columbia is of much interest to exporters from Seattle. British Columbia tonnage is larger than for the last four years at this time. The number of tons listed for the British side is 30,393. In 1908 it was 26,698; in 1907, 15,085, and in 1906, 14,660.

Figures showing the fleet at present bound for San Francisco and the Columbia river are of interest for comparative purposes. The vessels headed for the Golden Gate aggregate 169,170 tons. In 1908 the amount was 148,665; 1907, 229,764; 1906, 245,475.

For the Columbia river the figures are: 1909, 60,343; 1908, 68,652; 1907, 65,180; 1906, 35,440.

In addition to these fleets of foreign vessels headed for the principal North Pacific ports, there are ships bound for San Diego, San Pedro, Redondo and the Hawaiian Islands. This tonnage must be taken into consideration in figuring the number of vessels that will be available for outward cargoes.

The bulk of tonnage for the North Pacific is coming here under charter to load grain in the fall. Already over fifty sailing ships have been engaged for wheat and the exporters evidently feel that they are well supplied to start the season. Many of these vessels are French square riggers and not a few of them are coming out in ballast. The tramp steamers freighting coal for the American navy have helped to swell the fleet from the east coast. For Puget Sound five British steamers have either left Atlantic coal ports or are loading navy coal. These are the Headley, Strathyre, Camphill, Strathgyle and Cape Finisterre.

Several sailing ships are well on their way to this Coast and should be arriving within the next month.

* * *

"The heavy rains of the past few days will greatly benefit the wheat, and, except in the Horseheaven country and one or two other places where the rain came too late, insure an excellent crop," said Alexander Baillie, partner of Balfour, Guthrie & Co., the biggest exporting house on the Coast. "The wheat crop this season will be some three weeks later than usual, on account of the backward spring and summer, and exporting of grain will not begin before October. By far the larger portion of the wheat will go this year by steamer instead of in sailing vessels, as heretofore. Four charters have been secured already to supply the first demand, and when they are needed there will be plenty of steamers available for wheat. What charters we have already taken have been with the option of loading either on the Columbia river or Puget Sound. Wheat prices this year will probably be higher, notwithstanding a heavy crop, and whether the foreign call will be heavy cannot be said at this time. We have taken no charters for wheat for more than a week past, and probably will not take any more before the exporting

season opens in October. The crop will not be harvested this year until about the first of September, and it will take probably a month to accumulate enough for shipment on a large scale. Until then the matter of charters will not figure much in the shipping business."

Wheat, including flour exports from the United States and Canada for the week ending July 1st aggregate 1,310,849 bushels against 1,600,842 last week and 2,009,565 this week last year. For the 53 weeks ending July 1st exports are 168,875,961 bushels against 203,872,836 in the corresponding period last year.

* * *

The Chilean bark Royal Sovereign, lumber from Hastings Mills to Valparaiso on owners' account, chartered prior to arrival. British bark British Yeoman, lumber, from San Francisco and Eureka to Melbourne, chartered prior to arrival. German schooner Gertrude, barley, to United Kingdom, Antwerp or Denmark. French bark Mezly, barley, to United Kingdom, Antwerp or Denmark, chartered prior to arrival. American schooner Stimson, lumber, Puget Sound to Autofagasta. Chilean schooner Curzon, lumber, from British Columbia to West Coast on owner's account, chartered prior to arrival. Chilean bark Belfast, lumber, Puget Sound to West Coast, chartered prior to arrival. French bark Charles Gounod, general freight, Antwerp to Portland at 5s. The Charles Gounod, wheat, Portland to United Kingdom at 27s 6d. French bark Ernest Legouve, round trip between Portland and Europe, taking general cargo from Antwerp and returning with grain. French bark General de Sonis has also been taken for a round trip. French bark Cullon, cement, from Antwerp to Portland and return to United Kingdom with wheat. Steamer Winnibago, general cargo from San Francisco to Puget Sound and return. British steamer Camphill, coal, Atlantic range to Bremerton at \$3.30.

The list of recent charters reported by Hind, Rolph & Co. and the Shipowners' of the Pacific follows: Alex. T. Brown, 37s 6d, Puget Sound to Callao; steamship Melville Dollar, Albion to Guaymas, time charter; Glenholm, 27s 6d, Portland to Cork f. o., U. K., etc.; Wayfarer, 23s 9d, barley, San Francisco to Cork f. o., U. K., etc.; Thiers, 23s 9d, barley, San Francisco to Cork f. o., U. K., etc.; Brenn, 23s 9d, barley, San Francisco to Cork f. o., U. K., etc.; Zinita, 27s 6d, Puget Sound to Cork, f. o., U. K., etc.; steamship Capastrano, Puget Sound to Monterey and Gaviota, \$3.50; steamship J. Marhoffer, Columbia River to San Francisco, \$3; steamship Jim Butler, Puget Sound to San Francisco, \$3.25; steamship Carmel, Willapa to San Francisco, \$3.

Mr. Charles Page Bryan, United States minister to Portugal, writes that the new minister for foreign affairs approached him with a request that he inform the American Government of the earnest desire of the Portuguese Government to further in every possible way any movement looking to the establishment of direct and regular steamship communication between Lisbon and United States ports. Minister Bryan says: "There are now at least seven regular steamship lines connecting Lisbon with ports of other European and South American countries. Only one inferior steamer carries passengers at irregular intervals from Portugal to United States ports, although the demand for better direct communication is constant and ever increasing. The benefit to American commerce to be derived from greater steamship facilities is obvious."

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS.

The attention of the Hydrographic Office has been called to the fact that a few of its observers, owing to the establishment of the wireless telegraph system in some steamers, have formed the impression that it is not necessary for those not so equipped to report derelicts or other obstructions to navigation. This impression is erroneous, as the Hydrographic Office urgently desires all of its observers to report all obstructions met with in order that it may circulate the information for the benefit of all mariners, which it cannot do unless it receives the same co-operation it had before the advent of wireless telegraphy.

Captain G. H. Ewart, of the Steamer Bandon reports to the Branch Hydrographic Office, San Francisco, Cal., that on June 30th, 1909, he discovered a rock off the entrance to Coquille river, Oregon, with a depth of 8 feet at high water. This rock bears W by N true from 5 foot rock, distant about a quarter mile. Captain Ewart advises masters of all vessels bound north, if passing between Wash Rock and 5 foot rock to run within 100 feet of the latter and not to haul to the westward until the entrance to the breakwater is well open.

J. C. BURNETT.

Lieutenant, U. S. N., in charge.

Office of U. S. Lighthouse Inspector, Twelfth District.

NOTICE TO MARINERS—Humboldt Light Station, California. (List of Lights and Fog-Signals, Pacific Coast, 1908, page 24, No. 61, and List of Lights, Buoys, and Daymarks, Pacific Coast, 1908, p. 37.)

Notice is hereby given that the characteristic of the fog-signal at Humboldt Light Station, California, was changed July 1, 1909 to sound as follows:

Blast 4 sec.; silent interval, 26 sec.; blast, 4 sec.; silent interval 26 sec.

By order of the Lighthouse Board,

W. G. MILLER.

Commander, U. S. N.,

Inspector, 12th Lighthouse District.

The following report has been received from the Branch Hydrographic Office at Port Townsend, Washington: A rock with 11 feet over it at low water exists about the middle of Alexandra patch, Chatham Sound, 4 miles S. 50 E. from Lucy Island Lighthouse,

latitude N. 54° 14' 17", longitude 130° 33' 42" W. The rock is of small extent, there being 8 and 9 fathoms water within a radius of 100 feet. It is marked by a small quantity of kelp, which is seldom visible owing to the strong tidal streams.

J. C. BURNETT.

Lieutenant, U. S. N., in charge.

MEETING OF THE STATE BOARD OF HARBOR COMMISSIONERS, JULY 8, 1909.

The bill of the Thomson Bridge Company for repairing wharves, piers, bulkheads and ferry slips during the month of June, 1909, amounting to \$10,441.91 was ordered paid.

The bill of J. S. McAnany, contractor for dredging Channel street, between Third and Seventh streets, amounting to \$5,109.38, was ordered paid.

Meeting of July 15, 1909.

The contract for furnishing materials and erecting two office buildings at the entrance of the Washington street pier was awarded to M. M. Finlayson Co. for the sum of \$16,600.

A berth space of 50 feet in the center of the bulkhead between Howard street wharves Nos. 2 and 3 was assigned to the Warren Improvement Company, at a monthly rental of \$25.

The Board adopted a uniform rental charge of 50 cents per linear foot on bulkhead berth space, to date from August 1, 1909.

The Pacific Coast Steamship Company made application for two new piers, as soon as they have been constructed, north of Folsom and south of Market street ferries, and they will relinquish Piers Nos. 9 and 11 now occupied by them.

The Board has contracted with the Australian Hardware Company for \$3,000 worth of eucalyptus piles at the rate of 13 cents per linear foot for all piles of 12-inch to 13-inch butts.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Moon	Day of		Time and Height of High and Low Water							
	W	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
S	Sun	4	6:10	1.3	13:38	4.7	17:55	3.3	23:40	6.1
	M	5	6:54	1.2	14:20	4.8	18:50	3.2	23:52	6.1
	Tu	6	0:30	5.8	7:40	0.9	15:00	5.0	19:52	3.1
P	W	7	1:20	5.4	8:24	0.4	15:42	5.2	20:55	2.9
	Th	8	2:38	4.9	9:12	0.1	16:25	5.2	22:05	2.5
	F	9	3:56	4.4	10:05	0.8	17:08	5.4	23:18	2.0
3d q	S	10	5:26	4.1	10:56	1.4	17:50	5.5	23:34	1.7
	Sun	11	0:15	1.5	6:55	4.1	11:47	2.0	18:34	5.7
	M	12	1:25	0.8	8:15	4.0	12:40	2.4	19:18	5.9
N	Tu	13	2:25	0.1	9:28	4.1	13:37	2.7	20:04	6.1
	W	14	3:20	0.5	10:28	4.3	14:34	3.1	20:50	6.3
	Th	15	4:10	0.9	11:24	4.3	15:26	3.2	21:35	6.3
New	F	16	4:55	1.1	12:11	4.5	16:20	3.3	22:21	6.3
	S	17	5:38	1.2	12:56	4.6	17:10	3.3	23:05	6.1
	Sun	18	6:17	1.0	13:40	4.7	18:00	3.3	23:54	5.8
A	M	19	6:56	0.8	14:20	4.9	18:50	3.2	24:44	5.5
	Tu	20	0:42	5.4	7:42	0.4	14:55	4.9	19:42	3.2
	W	21	1:30	5.0	8:05	0.2	15:26	5.0	20:37	3.0
E	Th	22	2:29	4.5	8:42	0.7	16:00	5.0	21:34	2.8
	F	23	3:18	4.0	9:20	1.1	16:32	5.0	22:34	2.6
	S	24	4:30	3.7	9:55	1.6	17:00	5.0	23:25	2.2
1st q	Sun	25	5:45	3.5	10:30	2.1	17:32	5.1	24:15	1.8
	M	26	0:17	1.7	7:10	3.5	11:15	2.5	18:05	5.2
	Tu	27	1:12	1.1	8:22	3.6	12:15	2.8	18:45	5.4
S	W	28	2:05	0.5	9:25	3.8	13:12	3.1	19:30	5.7
	Th	29	2:52	0.1	10:15	4.1	14:10	3.2	20:18	5.9
	F	30	3:40	0.7	11:00	4.3	15:08	3.2	21:10	6.1
	S	31	4:22	1.1	11:42	4.7	16:00	3.2	22:00	6.2

Time used, Pacific Standard, 120th Meridian W.

0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

Place	Feet	Date	Remarks
Grays Harbor	19	May 29	Channel getting broader.
Willapa Bay	27	June 9	No change in channel; 16 ft. M. L. W. in channel to South Bend
Columbia River	25	May 28	Channel 300 ft. south of buoy.
Nehalem River	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Tillamook Bay	9	Apr. 30	Channel narrow: shifting to Southwest.
Yaquina Bay	14	June 2	Beneath on bench in line with south side of gulch leads over bar.
Siuslaw River	5½	July 1	Channel is in good condition.
Umpqua River	10	July 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coos Bay	17	June 1	Channel close to north jetty. No opportunity for soundings lately; before rise there was 7 feet on the bar.
Coquille River	5	July 1	Channel straight.
Rogue River	2	June 1	North channel very crooked; 18 ft. average low water in straight channel leading out northwest.
Klamath River	7	May 29	No change in channel.
Humboldt Bay	20	June 1	No change in channel.
San Pedro Bay	19	Apr. 30	Depth in dredged channel.
San Diego Bay	25	May 3	
San Pablo Bay	24	Apr. 21	

The Board assigned 150 feet on each side of Harrison street wharf for the use of the city fire boats to David Scannel and Dennis F. Sullivan.

The Board is soliciting bids for the construction of a bulkhead wharf between Piers Nos. 38 and 40.

Rule 74 of the Rules and Regulations of the Board of State Harbor Commissioners was amended to read as follows: Rule 74—Grain, flour, millstuffs, beans and seeds may remain in the grain shed located on the wharves at Sections Nos. 1 and 2 of the seawall until 5 o'clock p. m. on the third day after discharge free of wharfage charge; for the next fifteen days, or any part thereof, Sundays and holidays excepted, there shall be a wharfage charge of 5 cents per ton; for each additional day thereafter the wharfage charge shall be 5 cents per ton; provided that where any owner or consignee fails or refuses to pay, on demand, bills rendered for wharfage, or refuses to comply with other rules and regulations of the Board of State Harbor Commissioners, the provisions of rule 80 shall apply and become immediately effective as to such owner or consignee; provided, further, that in the event of congestion on the grain shed the Chief Wharfinger is empowered, at any time after the expiration of the third day after discharge, to cause the removal to the rear of the shed any cargo, or portion thereof, at the expense of the owner or consignee.

Bills amounting in the aggregate to \$43,500.14 were allowed and ordered paid.

SINGLE SCREW FREIGHT AND TUG BOAT "DOW NO. 1."

When the George E. Dow Pumping Engine Company moved the principal part of their manufacturing plant from San Francisco to Alameda they not only placed the plant so it had track facilities from all of the railroads, but placed it with an excellent tidewater frontage.

The problem next presented itself of how to transport their materials cheaply to the plant and the finished products to the points of delivery. This was best accomplished by building a boat of less than 15 gross tons so it could be operated by one man, with sufficient power to tow a small lighter loaded with castings and with sufficient carrying capacity to take a single car load shipment to any point about the bay.

The "Dow No. 1" was designed by D. W. and R. Z. Dickie of San Francisco and was built by H. Anderson of South San Francisco, he being the lowest of nine bidders. The engine was built by the Doak Gas Engine Co. of Oakland, Cal.

The general dimensions are as follows: Length over all, 56 feet 7 inches; length from the rabbet of the stem to the inside of the guard at the stern, 55 feet 8 inches; length from the rabbet of the stem to the back of the sternpost, 49 feet; beam moulded, 14 feet 8 3/4 inches; beam over plank, 15 feet 2 inches; beam over guards, 16 feet; freeboard at the lowest point of sheer, 21 1/2 inches; extreme draft, 4 feet 8 inches.

The frames of oak sided 3 inches, molded 4 inches at the heel and 3 inches at the head. The planking is 2 inches, ceiling 4 inches and decking 3x4 inches, all of Puget Sound pine. The keel and skeg are 8-inch pine with an ironbark shoe, all fastened with galvanized iron. Deck beam, 6x6 inches, reduced to 3 1/2 at the ends. The

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rail is built up solid, 18 inches high, of pine. Heavy guards of pine 4x8 inches, with 5x2 inch ironbark facing.

All underwater castings are of special bronze made by the George E. Dow Pumping Engine Co., so as to get them of the same composition to avoid galvanic action.

The vessel is a single screw boat with large forecandle under the deck forward down into which is fitted the pipe chain locker. Just aft is the engine room, with toilet on one side. A low house covers the engine room and extends into the large roomy pilot house, and is of the right height to form an operating platform upon which is mounted the control gear of the boat. Here is placed all of the auto control gear and all of the gear to make the vessel a one-man boat.

The pilot house is finished in cedar, varnished bright, drop shades on the windows, real leather cushions on the seats, water-cooler and all articles necessary to make the boat comfortable for the officer in command.

Aft the engine room and pilot house is a roomy hold, entered from a hatch in the deck. The rudder head is brought through to the deck and covered with a grating aft. The steering chain is led through the deck by means of a treble sheave and along under the deck to the operating gear under the pilot house floor. This mechanism is connected to the auto control gear in the pilot house.

Power is furnished by a three-cylinder heavy duty 50 horsepower Doak marine engine which developed on the stand 50 h. p. at 268 revolutions per minute; 53.5 h. p. at 280 r. p. m.; 58.3 h. p. at 300 r. p. m.; 62 h. p. at 320 r. p. m.; 64 h. p. at 330 r. p. m.; 65.5 h. p. at 340 r. p. m.; 70 h. p. at 390 r. p. m. The governor is set so the engine turns 330 revolutions per minute in the boat turning a propeller 45 inches diameter and 41 inches pitch, driving the boat at a speed of 10 miles per hour.

Exactly at 2:45 p. m. on July 6th little Miss Betty Dow, the pretty daughter of the vice president and general manager of the firm, acting as sponsor of the occasion, christened the boat "Dow No. 1."

Those present at the launch were Mr. and Mrs. George E. Dow, Mr. and Mrs. Wallace Dow, Miss Betty Dow, Master Lloyd and Master Dow, Mrs. Wilson, Mr. David Wilson, Captain H. Anderson, Mr. Harry Anderson, Mr. Butterworth Sr. and Jr., Messrs. D. W. and R. Z. Dickie.

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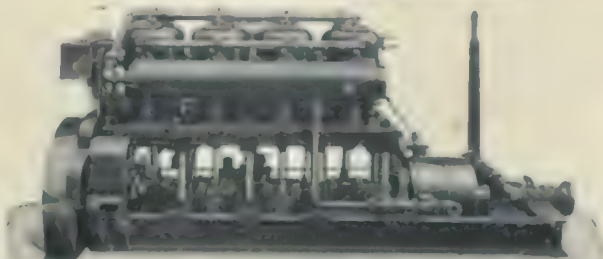
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SATURDAY, AUGUST 7, 1909

VOL. II

NO. 15

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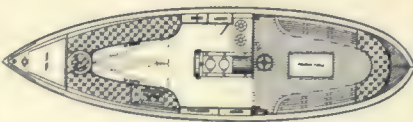
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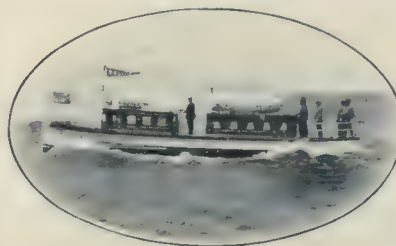
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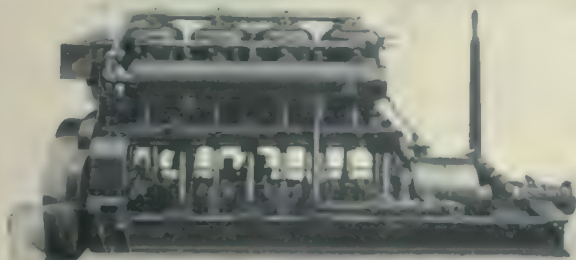
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Volume II

SATURDAY, AUGUST 7, 1909

Number 15

FIVE YEARS OF CANAL WORK.

Progress Made Under American Control Since May 4, 1904.

II.

Health and Sanitation.

It was recognized at the outset that the Panama Canal could not be built by Americans unless the Canal Zone was first made healthy in order that Americans could live here with reasonable safety. So long as health conditions were bad it would be impossible to recruit a stable labor force, not only on account

health. By executive order issued on April 1, 1905, when the second commission was appointed, three departments were provided for. The second of these was presided over by the Governor of the Canal Zone, and its duties included civil government and sanitation. The chief sanitary officer reported direct to the Governor. On November 17, 1906, the department of sanitation was separated from the government of the Canal Zone and made an independent department, with Colonel Gorgas at its head. Colonel Gorgas became a member of the Isthmian Canal Commission on February 28, 1907. In December, 1904, Dr. John W. Ross, U. S. N., resigned on account of ill health, and Dr. H. R.



The Largest Hotel in the Canal Zone at Colon.

of actual conditions, but also because the Isthmus of Panama had been given a world-wide reputation for unhealthfulness during the construction of the Panama Railroad and the work of the French on the canal.

The first Isthmian Canal Commission to take charge of the work of constructing the canal was appointed by the President on February 29, 1904, and confirmed by the Senate on March 3d. The commission arrived on the Isthmus on April 5th on a visit of inspection, accompanied by Col. W. C. Gorgas, medical corps, U. S. A.; John W. Ross, medical director, U. S. N.; Capt. C. E. Gillette, corps of engineers, U. S. A., and Maj. Louis A. LaGarde, medical corps, U. S. A., as experts on sanitation. After a thorough examination of conditions on the Isthmus these experts returned to Washington and reported a plan for the sanitation of the Canal Zone and the cities of Panama and Colon, and on May 8, 1904, Col. Gorgas, as chief sanitary officer, was authorized to proceed with the work. He returned to the Isthmus, arriving on June 28th. Between May 19, 1904, and June 30, 1904, Dr. L. W. Sprattling, U. S. N., was acting health officer. As the representative of the commission on the Isthmus, Gen. George W. Davis, Governor of the Canal Zone, issued an order on June 30, 1904, announcing the organization of the sanitary department, with Colonel Gorgas as its head.

Under the authority conferred on the President by an act of Congress, April 28, 1904, the Isthmian Canal Commission, on September 2, 1904, created the executive branch of the Canal Zone government, including in it the department of public

Carter was appointed director of Hospitals. Major Louis A. LaGarde, U. S. A., resigned in July, 1905, and was succeeded by Major John L. Phillips, U. S. A., as superintendent of Ancon Hospital. Dr. J. C. Perry, U. S. P. H. and M. H. S., succeeded Dr. Carter as chief quarantine officer, when Dr. Carter became director of hospitals.

The public health work has included three branches peculiar to the tropics—eradicating yellow fever, controlling malaria, and by means of rigid quarantine, keeping the Isthmus free from bubonic, yellow fever, cholera and smallpox. Yellow fever and malaria are carried from one person to another by mosquitoes, and the conditions in the cities of Panama and Colon, and in the Canal Zone villages were favorable to the breeding of mosquitoes. Stagnant water stood in streets and yards, water for home use was peddled from house to house and was kept in barrels and other open containers, underbrush was allowed to grow unchecked, and there was no general understanding among the inhabitants that the breeding of mosquitoes was a menace to health.

No deaths from yellow fever had occurred among the employees of the French company since 1897, although a few cases had been treated on the Isthmus in the year preceding the arrival of the Americans. A large part of the population of Panama was immune, and it was among the new arrivals that the disease first showed itself. In July, 1904, Charles Cunningham, a white employee of the police department, was taken ill with it and died. No other cases were reported for about a month. On

November 21st a case developed in Santo Tomas Hospital in the city of Panama, and in December, 1904, seven cases developed in that city.

In the month of January, 1905, the disease broke out in Colon, and in the two cities 19 cases were recorded that month. In February 14 cases developed; March, 11; April, 8; May, 33. The maximum was reached in June, when 62 cases were reported, and from that month there was a steady decrease, the number of cases that developed in July being 42; August 27; September, 7, and October, 3. The last case in the city of Panama developed on November 11, and the last in Colon on December 11, 1905. In all there were 246 cases in 1904 and 1905, and 84 deaths. Of this number 134 of the cases and 34 of the deaths were among commission employees.

The disease had been confined to the cities of Panama and Colon. It was fought by preventing the introduction of more cases from the fever ports of nearby countries, keeping patients in screened rooms where mosquitoes could not gain access to them, and by an energetic campaign for the extermination of mosquitoes. The work was carried on at first without the co-operation of the people, but within a year they had been taught to assist in the destruction of the mosquito.

The first work against malaria was undertaken in Empire, Culebra and Ancon in July, 1904, and by September it had been extended to Gorgona, Paraiso and Balboa. The situation with regard to malaria in July, 1904, is accurately illustrated by the conditions at Ancon Hospital, and in the various villages. Anopheles and stegomyia mosquitoes were found in large numbers in the buildings and wards. Mosquito breeding took place within a few yards of the wards and none of the buildings were screened. The decorative plants and shrubs in the grounds were surrounded with clay vessels containing water and vegetation in which mosquitoes were breeding, and all ditches in the grounds were producing mosquito life. There is no doubt that many cases of malaria and yellow fever had been contracted in the hospital itself previous to this time. Examinations of blood taken from the inhabitants of one town in the Canal Zone showed that 80 per cent of the people were infected with the malaria organism, and that Ancon was not an isolated instance was proved by the large percentage of cases from all the villages. In Colon one-sixth of the entire population was suffering from malarial attacks during each week, this deduction being based on the number of cases treated in the hospitals.

The permanent work for the prevention of malaria will be practically accomplished within a year, although certain measures, such as grass and brush cutting, oiling pools, and similar routine work must necessarily be continued indefinitely. The effectiveness of the work is shown by the following data giving the number of employees treated for malaria in the hospitals and the rate per thousand of employees:

Year.	Number.	Rate per thousand
1904.....	*422	125
1905.....	8,496	514
1906.....	21,938	821
1907.....	16,709	424
1908.....	12,372	282

*From and including July, 1904.

Only two cases of bubonic plague have developed on the Isthmus since American occupation. On June 15, 1905, a negro longshoreman, at Balboa (formerly La Boca), was taken ill, and a microscopic examination showed that he was suffering with bubonic. He died eight days later. The village was cleaned and disinfected, and a crusade against rats, the common carriers of bubonic, was begun. On July 9th a "rat brigade" was set at work in Panama, and a systematic effort to exterminate the rats around the docks and throughout the city was made. Rat traps were issued free to all persons who wished them. Later a bounty was placed on each rat delivered to the health department, and this bounty is still in effect.

In January, 1904, Dr. C. C. Pierce of the Public Health and Marine Hospital Service took up the work on the Isthmus of dispatching ships bound to San Francisco and also of making a sanitary survey of the Canal region. In May, by an arrangement between the State Department in Washington and the government of Panama, he took charge of the quarantine work for the port of Panama, and since that time the quarantine on the Isthmus has been under American control. In spite of the fact that ports on both the Atlantic and Pacific sides of the Isthmus, north and south, have been infected with bubonic, smallpox, cholera and yellow fever, the quarantine has been successfully maintained. In both of the stations, Panama and Colon, screened rooms are set aside for yellow fever suspects, and every precaution is taken to guard them from the bite of mosquitoes.

The effectiveness of the public health work during the five years of American occupation may be judged from the following statement of the sick rate based on the number of employees and the number admitted to hospitals, and the death rate based on

the total number of employees and the number of deaths:

Year.	Number admitted.	Rate per 1,000.	Death rate per 1,000
1904.....	.....	.....	13.26
1905.....	11,936	723	25.86
1906.....	31,153	1,166	41.73
1907.....	28,927	735	28.74
1908.....	23,126	527	13.01

AMERICAN INTERESTS IN CHINA.

(Canal Record.—Continued.)

The Bureau of Manufactures has furnished a brief review of railway conditions in the Chinese Empire. The railway from Kowloon (a place on the mainland directly across the harbor from the island of Hongkong) to Canton is one that is of no small interest to Americans. The island of Hongkong was made a British crown colony only in the year 1843. In the following years it became more and more apparent that the acquisition of territory on the mainland directly across the harbor would be essential to the existence of the colony; in the first place, because the island of Hongkong is small and very mountainous, so that building sites are limited; and, secondly, from a strategic point of view, as the mainland virtually commands the harbor. Accordingly, in 1860, Great Britain took a perpetual lease of an area of four square miles of the peninsula of Kowloon. In 1898 a further grant of the mainland was brought under British jurisdiction on lease for ninety-nine years.

The Kowloon-Canton railway scheme is one that is to a considerable extent bound up to the Canton-Hankow scheme. The Peking-Hankow railway and the Canton-Hankow railway, when completed, will together form a trunk line from Canton, the metropolis of south China, to Peking, the capital. The original concession for the Canton-Hankow railway was granted to the American-China Development Company in 1898. Its plan contemplated the development of a deep-water harbor in Chinese territory in the estuary leading to Canton. It was readily seen at that time that if this plan were to prove successful it would be a serious menace to the commercial supremacy of Hongkong, which always has been essentially the depot or distributing center for south China. To safeguard the interests of Hongkong, to prevent, if possible, the development of such a port, and to get a share in the lucrative traffic that was anticipated, a concession was obtained in 1898 by the British and Chinese corporation for the construction of a railway between Kowloon and Canton, where connection could be made with the line to Peking. This was one of the five lines arranged for with the Chinese Government by Sir Claude Macdonald or the grant of the concession for the Peking-Hankow railway to the Belgian syndicate.

To show the importance attached to the Kowloon-Canton line by those in a position to form an opinion, the following remarks, made by the Hon. Gershom Stewart, of Hongkong, speaking in October, 1905, in support of a petition to the governor urging action by the colonial government in view of the inaction of the concessionaries, are cited:

I would be averse entirely to urging the colony to pledge its revenue in the spirit of adventure in any enterprise, however hopeful the result might look, but this is a matter of exceptional interest entirely. I would consider any expense the colony might go to as advisable as any outlay on water supply or for sanitary purposes. It is necessary to protect ourselves. What we would like to see laid down is the broad principle that for the preservation of this colony and the safeguarding of British interests in south China, the colony be empowered, if necessary, to pledge its credit to insure the making of this railway and securing the termini in Kowloon.

During the period that had elapsed between the granting of the original concession to the British and Chinese corporation in 1898 and October, 1905, when the above

remarks were made, the American-China Development Company had given up its concession for the Canton-Hankow railway under circumstances that are too well known to require repetition. The American-China Development Company was to receive the sum of \$6,750,000 gold for the work they had done and as compensation for the loss of valuable rights involved in the cancellation of the concession.

For some time the Chinese Government planned to secure this sum, through subscription, from the wealthy and patriotic gentry of the province of Hunan, who had throughout resolutely opposed the construction of the line with foreign capital. However, when the moment arrived for payment the necessary funds were not forthcoming, and in consequence of this the Chinese were compelled to raise a foreign loan. It was at this turn of affairs that the British saw their opportunity, and in the summer of 1905 the colony of Hongkong arranged to advance the Chinese £1,350,000 (\$6,569,775). This loan is secured by the opium revenue of the provinces of Hunan, Hupeh and Kwangtung, bears interest at the rate of 4½ per cent per annum and is redeemable in ten years.

The government of Hongkong took into its own hands the construction of that section of the Kowloon-Canton road within the British leased territory and began the surveys for final location. Two engineers arrived in Hongkong in the middle of June, 1905, and submitted their report in October. The setting out of the line was then begun and steps were taken for the resumption by the Crown of the land required for the construction of the railway. Some embankment work was done by the colonial public works department during the closing months of this year.

While construction on the British line was under way another railway presenting possibilities of competition was opened January 6, 1908. This road is known as the Sunning railway, and it was financed, designed, equipped and constructed wholly by Chinese.

It is planned to extend from a seacoast harbor known as Sam Kap Hoi, a point west of Hongkong and Macao, across the Sunning district to a connection with the Canton-Hankow railway's Samshui branch. Efforts were made to have a treaty port established at Sam Kap Hoi, and the question is said to be under consideration by the Pekin Government. The imperial maritime customs made an examination of the harbor and declared that with a little dredging it could be easily utilized for coasting vessels. This line has not yet been entirely completed, but it is said that it will be finished from Sam Kap Hoi to a connection with the Canton-Hankow railway in about eight or ten months. Although this competition has not been very seriously regarded by the Kowloon-Canton railway people, it would, nevertheless, in capable hands, prove an active competitor of the Kowloon-Canton line. Especially would this be true if in any way it should come into control of the Canton-Hankow Railway Company, and be used by them as a feeder in competition with the British line.

In the construction of the Chinese section of the Kowloon-Canton line one of the requirements of the British capitalists is that "at equal rates and qualities, goods of British manufacture shall be given preference over other goods of foreign origin."

Notwithstanding British influence in China, the demand for American-made goods is increasing. American merchants and manufacturers having trade in China, and those desirous of entering the markets, should carefully study the conditions and requirements of the Chinese

trade under the present aggressive policy of the Empire to extend its land and sea traffic. Particularly so does this apply to American motors and machinery in general.

The Asiatic Petroleum Company has recently built and is operating a motor house boat at Shanghai. This boat is larger than the former type of house boat, being built on modern lines; length, 57 feet; beam, 9 feet; draft, 23 inches, and driven by two four-cylinder motors of 14 horsepower each. Conditions and legislation in China require that American manufacturers should know the exact type of engine needed. At Canton 289 steam launches are registered as being engaged in the inland trade, in addition to which are a number of private launches and 51 motor boats. Formerly the engines were imported from England and to some extent from Germany, but in the event of repairs being needed the distance to these countries precluded the possibility of quick repairs, and the Chinese using original parts as patterns made impromptu repairs and ultimately producing a complete engine, crude in the extreme, and the best of which is invariably replaced by the American engine. American merchants are of the opinion that the tariff and transportation to China would preclude the possibility of competing with the Chinese or foreign-made engine, but Hongkong, being a free port where the boats are invariably engined and subsequently sent to other parts of China where the five per cent duty prevails, therefore the five per cent duty for all goods shipped to Hongkong is to be neglected.

FOREIGN EXPOSITIONS AND CONVENTIONS.

Buenos Ayres—The minister of the Argentine Republic at Washington, in a note to the Department of State, informs the government of the United States that there will be held at Buenos Ayres, from May till November, 1910, on the occasion of the Centennial Anniversary of the National Independence, an International Agricultural and Live Stock Exposition, in which may be exhibited all kinds of live stock, within the limitation prescribed by the sanitary laws, and the products of stock farms, agriculture, hunting and fishing, as well as their immediate derivatives; also machinery and implements used in agriculture and kindred industries, and everything relating to studies in the domain of agricultural instruction, encouragement and legislature. Room may be asked for animals up to February 10, 1910, and for all articles connected with the above mentioned rural industries up to November 10th of the present year. The government of the United States has been invited to send representatives to this exposition. Special Agent Charles M. Pepper writes in regard to the Exposition at Buenos Ayres as follows:

It does not seem to be fully realized by our manufacturers what a land of opportunity the land of the Argentine Republic is for the railway builder. It is a country with more than 1,200,000 square miles of fertile territory, which some day will have a population of 50,000,000 people. Some of the best farm lands have been opened up, and everybody knows Argentina's importance in supplying wheat and beef and mutton to the world. The railroads already built have made this possible, but the crops and the herds will increase much more in the future when the vast areas yet untouched are reached by railway. The Argentine government has been very liberal in its encouragement of railway construction, and the lines now extend north to Bolivia, west to the heart of the Andes, and south to what was formerly called Patagonia. But there are many trunk lines and branches yet to be built. I have no doubt that, as the committee in charge of the exposition says, the 16,000 miles of railway lines which now

serve the agricultural and commercial needs of the country will be increased within the next generation to 50,000 or 60,000 miles. The enormous increase in the Argentine foreign trade and the rising tide of immigration are signs of what may be expected in the future. So that there are not only the needs of the existing railways to be supplied, but there are new lines which are certain to be built.

The Argentine railway system is thoroughly up-to-date, with all the latest improvements in the way of equipment. The market for steel rails, locomotives and rolling material should appeal especially to the manufacturers in the United States. Argentina is now our chief foreign market for agricultural machinery. We should be equally successful in supplying it with the material to build and operate its railways. The exposition is to include electric railways and tramways, as well as steam lines. The ownership of the electric lines is mainly held in the United States. Address Argentine Minister, Washington; D. C., for full information on the subject.

Santiago, Chile.—The State Department at Washington has addressed a letter to Geo. W. Fishback, 27 William street, New York, manager of the proposed exhibit. The letter follows:

Referring to your letter of December 8th in regard to the proposed invitation of the South American Exhibit Company to the leading manufacturers of the United States to make a representative exhibit in Santiago, Chile, for the period of two or three months during this year, it has been recently brought to the attention of the department that the company has issued a circular in which the following words appear:

"The enterprise has been approved by the department of state and the department of commerce and labor, the International Bureau of American Republics in Washington, many leading manufacturers as well as the Government of Chile, which has agreed to place at the disposal of the company three buildings in the beautiful Government park of Santiago for the coming exhibition."

While the department is naturally deeply interested in any project which will legitimately bring the United States and Chile into closer relationship by reason of the more intimate trade intercourse of the two countries, it cannot but feel that the wording of the circular in question may be misleading to the business public in the United States. As you are aware, the project of the South American Exhibit Company is a purely private one, and although the American minister in Santiago has been instructed to lend such support to the enterprise as the circumstances seem to him to warrant, it is clear that the exhibition is not being held under the auspices of either the government of the United States or that of Chile.

Germany.—Consul Herman L. Spahr writes from Breslau that the forty-seventh annual international machine exhibition will be held in that city in May, 1910. A number of English exhibits are seen each year, and American manufacturers of agricultural machinery, vehicles, motor boats, dairy machinery, etc., might profit by making a display of these articles. Address Laudes Oekono-schaftlichen, Vereius zu Breslau, Matthaostrasse 6, Breslau X, Germany.

Berlin.—All arrangements have been perfected for holding an American exposition at Berlin in the months of April, May and June, 1910. This exposition is designed primarily as an exhibit of distinctively American products, and the management is especially desirous that American manufacturers of novelties shall take part. The intention is to make apparent to the people of Europe, and especially Germany, the importance and excellence of American manufactures, and to this end the German committee will advertise the exposition throughout the German Empire and elsewhere, and will co-operate with American manufacturers and exporters in every way to popularize and exploit American products. Baron R. von

Brandenstein is at the head of the German advisory committee, and Dr. Geo. F. Kunz of New York is at the head of the American committee, the headquarters of the latter being at 50 Church street, New York, and Mr. Max Vieweger is in charge. It is announced that the price of space per square foot will be \$4, which will include all incidental expenses. Blank applications for space and all information in regard to the exposition may be obtained from Mr. Vieweger.

Mexico.—The Mexican Herald states that plans are on foot for holding an agricultural and commercial exhibition in Mexico. This may assume the shape of an agricultural congress to be held in September, 1910, as a part of the celebration of the Mexican Centennial. Among the prominent men interested in the plan are Zeferino Dominguez, Archbishop Mora of Leon, Porfirio Diaz Jr., and Lie. Luis Gorozope.

Hungary.—An international horticultural exposition will be held in Budapest in May 1910. In view of the development of agriculture and horticulture in Hungary, manufacturers of implements in these lines, as well as seedsmen and nurserymen, might find it greatly to their advantage to make exhibits.

France.—At a meeting of the commission of the International Exhibition to be held at Roubaix, it was decided that the exposition should cover a large portion of the Park Roubaix and some adjoining land, and that it should be known as the "Exposition Internationale du Nord de la France." Everything will be done to make it rank in proportion to its size, with the best of international expositions. It will offer a good opportunity for the introduction into this district of American manufactured articles of every description. Address Bureau of Manufactures, Washington, D. C.

Italy.—Information has been received concerning the international exhibition to be held in Turin during the months of April-October, 1911, to commemorate the fiftieth anniversary of the proclamation of the Kingdom of Italy.

This exhibition will present an exceptional opportunity for American manufacturers to enter Italian markets under the most favorable circumstances. The rapidity with which Italy continues to expand industrially is a matter of great and immediate importance to American manufacturing interests. Only by thorough representation at this almost exclusively industrial and commercial exhibition (the fine arts and activities relating to them will not figure therein) can these interests be best furthered in Italy at the present time.

The executive committee is exceedingly anxious that the United States shall have a building at the exhibition, but has arranged, in any case, that about 10,000 American manufacturers will be directly urged to exhibit. Up to the present time the following countries have signified their intention of taking part officially in the exhibition: England, France, Germany, Spain, Switzerland, Belgium, Roumania, Argentine Republic, Ecuador, Salvador, Columbia, Nicaragua, Siam and Portugal. Of these nations England, France, Germany and Belgium have already selected sites for buildings. Address Bureau of Manufactures, Washington, D. C.

Japan.—Consul George H. Seidmore of Nagasaki reports that an industrial exposition of the products of the prefectures of the island of Kiushin and of the Loo Choo group will be held at Fukuoka, in the consular district of Nagasaki, from March 11 to May 9, 1910. Although this exposition is intended to be of purely domestic character, the governor of the Fukuoka Prefecture has informed Consul Seidmore that exhibits of American products will be welcome, provided he can receive early information as to space required.

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The deplorable condition of the American merchant marine has placed the United States subject to the just criticism and ridicule of all nations of the world. Justly proud of American enterprise and industry, the people of the United States, with the full power of electing those best qualified to judge and legislate for the common good of all, and the nation as a whole; whose oath of office solemnly binds them to this sacred obligation, and to support the Constitution, not directly expressed as herein written, yet so entwined is the sentiment and the fact that every American statesman worthy of the name has lived in the true spirit of both.

Statesmanship, as we know, is equally as susceptible to improvement as are other professions. The sphere of statesmanship, however, is limited to the oath or affirmation to support the Constitution. To err in fulfilling this obligation is no excuse for honors as a statesman; to evade the obligation wilfully, by subterfuge or otherwise, brings just and inevitable condemnation; softened according to conditions, by pity or sympathy for the unfortunate victim, who thoughtlessly permits himself to be used as a cat's-paw for others.

Every American statesman in history has been subject to more or less criticism, yet justice has immortalized the names of those who knew and lived the truth of the Constitution.

HARBOR IMPROVEMENTS IN JAPAN.

Oita is a thriving seaport, located on the shore of Beppeo Bay, which indents the northeastern coast of the island of Kinshin. Its coastwise and inland sea trade is extensive, but owing to the shallowness and exposed conditions of its anchorage, its direct foreign trade is very limited. Within its present breakwater there are only twenty feet of water, with sandy bottom. It is now proposed to expend the sum of 1,500,000 yen

(\$747,000) on improvements that will provide safe accommodations for vessels of 8,000 tons' measurement. This sum is to be raised by a prefectural loan and by a subsidy from the Imperial Government. These improvements will consist in dredging for a distance of 1800 feet from the shore, the construction of sea walls, the erection of cranes and warehouses, the laying of tramways, and provision generally of machinery and appliances necessary to the equipment of a convenient port. It is planned to complete the work within three years.

A very considerable quantity of machinery, tools and structural iron and steel will be required, and here is apparently an opportunity for the sale of American products. The work will be under the supervision of the prefectural authorities, and inquiries as to materials required and proposals should, therefore, be addressed to the Governor of Oita Kew, Oita, Japan.

The following is from the Japanese Advertiser regarding the improvements of the Yokohama harbor:

The ground to be reclaimed for the new harbor covers an area of 56 acres, and will be enclosed within a length of quay walls of a little over 6,800 feet, with over 1,500 feet of landing stages and provided with five landing steps. Of the 6,800 feet of quay walls, 12.6 feet above low water level, about 5,700 feet will be available for accommodation as per the following table:

Depth below average low water.	Available length for loading and unloading. Feet.	Providing accommodation for vessels	Total tonnage. Tons.
32 feet	642	1	8,000
28 feet	3,162	6	33,000
24 feet	960	3	8,700
20 feet	942	3	4,800
Total	5,706	13	54,500

Accommodation for cargo is to be provided in eleven iron sheds, distributed along the quays to a distance of about 39 feet apart. These will cover altogether about 350,000 square feet, while three wooden sheds covering over 103,000 square feet, are to be provided for the storing of goods brought in lighters to the wharves in the vicinity, specially made for this class of vessel. In addition, provision has been made for the construction of four three-story brick warehouses, with a total area of over 110,000 square feet, and provided with iron galleries—in both front and rear—fireproof staircases, cranes and elevators, and lighters and light rails for the transportation of goods, while both sheds and warehouses will be supplied with electric light from the powerful electric light and motor plant in the grounds, so that work may be carried on continuously. Two stationary cranes, one electric of 50 and one steam crane of 30 tons' capacity, together with 31 traveling cranes of from one to five tons each, will be distributed along the quays, all to be supplied, like the 32 capstans for the mooring of vessels, with motive power from the above-mentioned electric light and motor plant. Large underground water mains, with hydrants at suitable intervals, are provided for the supply of fresh water for the ships and for cases of emergency. All electric wires are confined in underground tubes.

A network of 11 miles of railway will radiate the whole compound and connect with the main line of the Yokohama and ultimately Hiranurna stations. By this means freight trains will be enabled to come alongside the vessels, and, after having taken cargo on board, proceed straightway up country.

The amount appropriated in 1906 for the completion of the works was \$1,073,640, of which the government voted \$2,729,040 and the city of Yokohama contributed \$1,344,000. Of this amount \$1,852,560 will have been spent at the expiration of the year ending March 31, 1909. The chief engineer promises to turn over the works fully completed in the spring of 1914.

Commerce of the Argentine Republic for 1908 includes goods sold to Great Britain \$78,000,000, bought from \$93,000,000; to Germany, \$35,000,000, and from \$38,000,000 to the United States \$13,000,000 and from \$35,000,000. There is a marked preference for American manufactured goods in the Republic.

NOTES OF PACIFIC COAST PORTS.

Port of San Francisco.

Ship Drummuir Sold.—The ship Drummuir, 1798 tons, which has been in the harbor for over a year, when she arrived from Newcastle, Australia, with a cargo of coal, has been sold to Sydney Hart for \$15,500.

Steamer Isleton to Be Reconstructed.—The California Transportation Company will rebuild the steamer Isleton, which, on July 3rd, was scuttled to keep her from being entirely destroyed by fire, at an estimated cost of \$50,000. The machinery was undamaged.

Pacific Mail Company Inaugurate New System to Prevent Smuggling.—Photographs of all the Chinese crew of the Pacific Mail steamers will be taken upon arriving and leaving port, and several times while in port. The Chinese are in the habit of substituting others in their places who desire to return to the native country, and it is through this means that thousands are smuggled each year.

Berkeley Foreign Trade Growing.—The Matson Navigation Company's bark Alice is the first vessel to take cargo from Berkeley for a foreign port. The cargo consisted of 500 tons of fertilizer consigned to Honolulu. About a month ago the bark S. N. Castle docked at Berkeley direct from Singapore with a cargo of copra, the first cargo to be docked from a foreign port.

F. W. Searby of the El Dorado Oil Company has asked the city council of Berkeley to agitate the matter of making Berkeley a port of discharge of foreign cargo.

New Steamship Company on San Francisco-Vallejo Run.—A number of San Francisco and Seattle capitalists have organized a company to compete with the Monticello Steamship Company, which has built up a million dollar corporation on this run.

Two fast boats have been purchased on the Sound, which will be brought down the coast to run in opposition to the Monticello boats. The city trustees of Vallejo have been requested to grant the new company permission to land at Virginia street wharf. The organizer of the company is Captain B. Waters of Stockton.

Cruisers West Virginia and South Dakota Will Dock at Hunters Point.—In accordance with instructions received from Washington the cruisers West Virginia and South Dakota will leave Mare Island on August 6th and 11th, respectively, proceeding to Hunters Point, where they are to be docked. They will then join the Maryland and California, which are under orders to leave the yard the latter part of the month, and the entire Pacific fleet will re-assemble preparatory to the fall cruise.

Work on the supply ship Glacier will be given preference after the cruisers leave here. Fifty days' work, consisting mainly of repairs to her refrigerator plant and a general overhauling of her machinery, have been authorized, and it is desired that this work be expedited, as the Glacier is to follow the fleet with supplies for the cruisers, leaving Mare Island at the earliest date possible.

Owners of Tug Relief Waive Liability for Wreck of Roderick Dhu.—The owners of the tug Relief have filed in the United States District Court their answer to the claim of the Associated Oil Company for \$140,000 damages for the loss of the Roderick Dhu, which was wrecked at Point Pinos while being towed from San Francisco to Monterey Bay by the Relief. The defendants contend that the wreck was not due to negligence on the part of the crew of the tug. A further defense is that the tug, having been properly manned and equipped, the owners

are protected from liability by the Navigation Act; further that the tug's liability could not in any case exceed \$25,000.

Owners of the Steam Schooner Lillebonne in Court.—M. C. Harrison, former manager of the steam schooner Lillebonne, brought suit in the Superior Court seeking an accounting from his one-time partners in the vessel, H. D. Cousins and H. W. Hutton, and a judgment against them for moneys he claims to have advanced for the conduct of the business and which they refuse to pay.

Harrison claims that Cousins and Hutton each owned two thirty-seconds interests in the vessel. As manager he paid out \$27,350 for operating expenses, while the freight receipts within the same period were only \$20,024, leaving a deficit of \$7,325.

Cousins, it is claimed, disposed of his interest to S. G. Cousins, who afterward retransferred the stock to H. D. This transfer Harrison claims he knew nothing about, and therefore paid out his own money, thinking H. D. Cousins was a responsible owner. Between the transfers he claims neither of the Cousins are willing to reimburse him, and that, while he has effected a settlement of accounts with all the other owners in the vessel, Hutton and Cousins have refused to render either an accounting of the business they handled for the boat or to pay him the amount he claims is their share of the deficit.

California Navigation Company's Suit to Be Removed from Alameda to Stockton Court.—Motion for a change of venue has been filed by defendants in a suit for restitution of capital stock funds instituted by L. Bleakmore against the California Navigation Improvement Company. Stockton was said to be the proper place for the trial, headquarters of the company being at that city.

Bleakmore as a stock holder alleged that the directorate had paid \$54,000 out of the capital stock funds as dividends during years when the company had returned no actual profits.

Affidavits were filed by Sidney Newell, president of the company and president of the Stockton Savings Bank, and by P. B. Fraser, president of the Farmers' and Merchants' Bank of Stockton, in support of the petition for change of venue. Other affidavits were signed by J. F. Peters, Ward Smith, George B. Sperry and S. P. Elliott. E. Hedges, also a defendant, was said to have been out of the directorate for years prior to the commencement of the alleged unlawful diversion of funds.

As Hughes was a resident of Oakland the defendants alleged that he had been included in the suit for the express purpose of appearing to justify the selection of Alameda county for the trial.

Boilers of the Naval Auxiliary Ship Iris Said to Be Unsafe.—According to reports concerning the condition of the naval auxiliary ship Iris it is surprising that another Bennington tragedy was not added to the records of the navy during the recent voyage of the former cat-tleship across the Pacific. It is alleged that the vessel's boilers were in no condition to attempt the long voyage to the United States and the subsequent accident which occurred when the crown sheets fell is said to have been only one of the many anticipated by those aboard her.

Among the officials on the yard, however, nothing is known of the alleged unsafe condition of the vessel, no examination having yet been made of her. The Iris was always one of the slowest and poorest of the vessels owned by the government, having been under repair about half of the time since she was purchased, and the fact that she took an unusually long time to make the trip across the

Pacific is regarded as merely in keeping with her general reputation for slowness.

No orders have yet been received at Mare Island regarding the work on the vessel, but it is reported that the department may order a survey on her, preparatory to offering her for sale.

Oil Steamer Catania Placed in Commission.—The Coast Oil Company has placed the oil tanker Catania, which has been lying idle in the bay for several months, in commission again.

This Season's Salmon Catch Will Exceed Last Year's.—From reports received of the Bristol bay catch it is likely that this season's salmon catch will exceed that of last year, which was the heaviest of many seasons. The catch of 1908 for Bristol bay amounted to 1,170,285 cases, while this season's catch is already 1,064,000 cases.

The Bristol bay catch thus far this season is as follows: Alaska Packers' Association, 620,000 cases; North Alaska Salmon Company, 176,000 cases; Naknek Packing Company and Red Salmon Packing Company, 66,000 cases; Alaska-Portland Packers' Association, 49,000 cases; Northwestern Fisheries Company, 45,000 cases; Columbia River Packers' Association, 42,000 cases; Alaska Fishermen's Packing Company, 39,000 cases; Bristol Packing Company, 27,000 cases.

Steamer Korea to Have Wireless.—The Pacific Mail Company intend to equip the liner Korea with the wireless apparatus of the steamer Pennsylvania. The wireless on the Pennsylvania is of no service, as the vessel is out of communication with other stations.

Cutter Inspector to Be Placed in Commission.—The customs and immigration officials will utilize the steam cutter Inspector, which was originally built for service between San Francisco and Angel Island when the new immigration station is established, as a boarding vessel alternating with the cutters Golden Gate and Hartley.

Big Carriers Will Be Allowed Additional Time to Remove Cargo.—The Williams Diamond Company, agents for the American-Hawaiian line, appealed to the State Board of Harbor Commissioners regarding the regulation imposing a penalty on freight left for more than 48 hours on a state wharf, and stated that it was an impossibility to remove within 48 hours freight discharged on the wharf with the expedition they must to maintain their schedule. The commission, taking into consideration the fact that the port's system of distribution had not improved with the discharging ability of a modern freighter, made an exception to their ruling in the case of ships discharging or loading cargoes of more than 2,500 tons. In this case the time will be extended to four days.

Opium Will Be Allowed to Come Here in Transit.—Collector of the Port Stratton has been notified by Washington officials that opium coming from one foreign country in transit to another can be legally transferred from one vessel to another, if brought for immediate transfer by sea.

If, in any case, the vessel to receive the opium is not in port upon the arrival of the ship carrying it, then the collector must safeguard the carrier until such time as the vessel that is to receive the opium arrives, which must not be more than fifteen days. All opium in the port at the present time, amounting to about 400 cases, must be exported within fifteen days or it will be destroyed.

Libel Suit Filed Against Schooner Newark.—The Pacific Shipyard and Ways Company have filed a libel suit in the United States District Court against the gasoline schooner Newark for the recovery of \$105 alleged to be due for labor and material furnished to the vessel.

Old Cruisers to Be Overhauled.—Preparations are be-

ing made by the navy yard authorities to put into commission the cruisers Cincinnati and Raleigh, which have been lying in the channel for the last two years. The vessels will be brought up to the very latest type. Fire control systems will be installed on both cruisers.

Steamer F. A. Kilburn Sued for Damages.—Basillas Halos has filed suit against the steamer F. A. Kilburn in the United States District Court for \$25,150 damages. The plaintiff states that while firing on the Kilburn the boilers exploded and crippled his hands so badly he has been unable to work since. The accident happened June 19th.

Barkentine Archer to Be Equipped With Auxiliary Power.—The barkentine Archer, which operates between Rocke Harbor and San Francisco carrying lime, will, in the near future, be equipped with a 300-horsepower producer gas engine. This is a new type of gas engine and is in successful operation in Germany.

Sentence of Captain Carl Schillinsky Reduced.—Supervising Inspector John Bermingham has modified the penalty imposed upon Captain Carl Schillinsky, who was suspended by local inspectors for twelve months for negligence in having run the steam schooner Sybil Marston ashore near Surf on January 12th last. Inspector Bermingham finds the penalty excessive. He reduces it to six months, to date from April 9th last. Captain Schillinsky mistook the station light at Surf for the Point Arguello light. An unknown inshore current carried him eight and a half miles off his course in fifteen hours.

British Bark Simla Pays Heavy Tax.—The British bark Simla, which was recently purchased by the Shipowners' and Merchants' Towboat Company and towed here from Acapulco for repairs, doubtless paid the heaviest tax ever levied against a vessel entering this port. Collector Stratton imposed a tax of \$1 a ton for the Simla's registered tonnage, which amounted to \$2,112, although they intended to enter the bark as a wreck. The tax was levied because the Simla came as an undocumented vessel. In addition an arbitrary tax of 3 cents a ton was imposed, making the total assessment \$2,175.36.

New Steamer Line Between San Francisco and Eureka.—W. G. Crosby of San Francisco is in Eureka for the purpose of organizing, if possible, a stock company for the purpose of building or buying a steamer to operate between Eureka and San Francisco, and is working at the task of raising the money and getting the stock for the new steamer subscribed.

It is the plan of Mr. Crosby to organize a company, if possible, and build a steamer to operate on a fast passenger schedule between Eureka and San Francisco. The steamer would not be especially large, but would be elegantly equipped and designed for high speed and the carrying of passengers between Eureka and San Francisco.

Steamer Kansas City Will Be Ready August 21st.—The steamer Kansas City, which was purchased in the East and brought around the Horn by the San Francisco and Portland Steamship Company, will be ready for service on August 21st, and will take the place of the steamer Rose City, which will lay off a trip.

Matson Navigation Company to Establish New Service.—The Matson Navigation Company will, the first of next year, inaugurate a freight and passenger service between Puget Sound and Honolulu. The steamer Lurline, which now operates between San Francisco and the islands, will be placed on the Puget Sound-Honolulu run, and she will be superseded in her present run by the new liner Wilhelmnia, which will be completed in the East the last of this year.

The merchants of the Hawaiian Islands have demanded this service for a long time, as there is no direct passenger or freight service on this run at present.

Oakland's Traffic.—According to a report by the Chamber of Commerce of Oakland two hundred and forty-nine vessels, with a total tonnage of 115,919, docked at Oakland harbor during the month of July. Of this number, 220 were steamers, 13 schooners, 13 lighters, one ship, one bark and one scow. The number of feet of lumber brought in and delivered by these vessels amounted to 17,037,000. This does not include shingles, shakes and laths.

Seattle.

Steamer Zafiro Will Be Used in the Passenger Service.

—The famous United States collier Zafiro, which was sold at auction recently by the United States Government, is being overhauled preparatory to entering the passenger service between Seattle, Vancouver and Prince Rupert.

Steamer Iroquois Damaged in Collision with Lumber Schooner Endeavor.—During a dense fog on July 21st the steamer Iroquois collided with the schooner Endeavor, Captain McAllep, from San Pedro, for Ballard, in ballast. The collision occurred about two miles south of Marrowstone Point. The impact was quite severe, and when the vessels were cleared it was found that the bow of the schooner had been cut to the water's edge. Little or no excitement prevailed among the passengers and crew of the Iroquois, and every order of the captain was promptly obeyed.

The Iroquois offered to take the crew on board, but when it was found that the schooner was not seriously damaged a line was passed aboard, and she was towed to an anchorage in this harbor, and the Iroquois continued to Victoria. According to Captain McAllep, the damage to his vessel will reach between \$5,000 and \$10,000. The fog came up unexpectedly, and the schooner was surrounded by vessels sounding fog signals. To better guard against collision he had his automatic fog signal sounded at intervals of 40 seconds, but notwithstanding he had two narrow escapes from collision before he was struck by the Iroquois.

When the collision occurred the man who was operating the fog signal had to jump to save himself from being crushed. No blame for the accident is attached to the master of either vessel, as both were using the utmost caution.

The Endeavor will remain here until her damages are fixed by the Board of Survey, then she will proceed to Ballard for repairs.

Passenger and Freight Traffic to Alaska Continues Good.—The capacity on both the regular and excursion steamer lines is being taxed to the limit and it is expected that traffic will continue heavy until the end of September. The exposition has brought thousands of strangers to Puget Sound, and the steamship men are reaping the benefit. Not in years has the travel to and from south-eastern Alaska been so heavy. By far the largest per cent of this business, however, is excursion, although there is the usual amount of regular travel. For weeks every steamer to Skagway and Sitka has been crowded and many tourists have been disappointed in being unable to get accommodations on this route. Even with extra vessels on the run, it has been impossible to care for the rush.

Libel on Tug Sophia.—James Murphy et al., has libeled the steam tug Sophia, owned by C. D. Hillman. The plaintiffs allege that the owner owes them \$117 for wages.

Fine Levied on the Steamer Aquilo Will Not Be Remitted.—The Washington officials have upheld the de-

cision of the local authorities in refusing to remit the fine imposed on the steamer Aquilo, which belongs to the Anderson Steamboat Company. The Washington officials, however, reduced the fine considerable. The fine was placed because of the overloading of the Aquilo on the opening day of the Alaska-Yukon-Pacific Exposition.

Gasoline Boat City of Long Beach Will Operate Between Irondale and Seattle.—The City of Long Beach, a gasoline excursion boat from California, will go on a run from Seattle to Irondale, the new steel town started by James A. Moore and associates. The Long Beach has been tied up at West Seattle since her arrival here a few weeks ago. She will compete with the smaller boats of the Puget Sound Navigation Company calling at Irondale.

Hall Brothers Lose in Suit for Sale of Steamer Victoria.—Judge C. H. Hanford, in the United States Circuit Court, denied a motion for the sale of the steamship Victoria to cover an alleged indebtedness aggregating \$25,000. Hall Brothers were the principal claimants, alleging in their complaint that of a total indebtedness of \$17,485.71 but \$5,000 had been paid.

Schooner North Bend to Be Given British Registry.—McKenzie Bros. have taken a charter for one year on the three masted schooner North Bend, and upon being changed to British registry she will be operated between British Columbia ports, carrying coal and other bulk cargo.

The North Bend will be towed between ports by the tug Escort. The schooner will not be dismantled, but the charterers have the option of purchasing her at the expiration of the charter. The North Bend is a wooden vessel, built in 1877 at Coos Bay. She registers 376 tons gross and 357 net and has a capacity of 700 tons of cargo. The dimensions are: Length, 153.5 feet; beam, 32.8 feet; depth, 11.2 feet.

Seattle's Customs Receipts.—Seattle customs receipts for the month of July were nearly \$130,000, or about half the amount for the entire Puget Sound district. The total is estimated at \$250,000.

Cargo of Steamer San Mateo Attached.—J. L. Bean has attached a shipment of Alaska furs and whalebone, consisting of about 200 bales and bundles and valued at \$40,000. The complaint was filed against the North-eastern Siberian Company, asking judgment for \$12,350 on account of \$7,950 worth of merchandise sold the defendants and \$4,400 alleged to be due for the lease of the steamer P. J. Abbe.

Government Awards Contract to Handle Coal at Puget Sound Navy Yard.—Rothschild & Jones have secured the government contract to handle 50,000 tons of coal at the Puget Sound navy yard for the year ending June 30, 1910.

Whalebone.—The assertion that an attempt is being made to corner the whalebone supply of the world and boost the price to \$5 a pound is denied by William J. Lewis, of the ship chandlery firm of Lewis, Anderson, Foard & Co., of Seattle, through whose hands all the whalebone of the world passes.

"There has been no attempt to raise the price of bone, nor will there be such a move," said Mr. Lewis recently. "The sale of bone last year amounted to about 100,000 pounds and will probably be the same this year. There has been no market for bone yet, nor will there be until this fall. There is on hand at the storehouses in New Bedford more than 200,000 pounds of bone, or enough to supply the market of the world for the next two years.

In order to prevent a congestion of the market, the whaling companies decided not to go to the expense of sending out whalers this year, and with one exception the boats are laid up at San Francisco. The Kurluk went to the Arctic on a private venture, but her owners should be the last to object to the price of bone being placed at \$5, for the higher the figure the more their bone can demand.

"A price of \$5 a pound for bone does not mean the ordinary whalebone delivered at Nome. It means \$5 a pound in Paris for the prize bone, which is twice as much as it is worth here. There is a big shrinkage in the weight of whalebone, amounting to 5 to 15 per cent from Nome here, 10 to 20 per cent from Seattle to New Bedford and 5 to 10 per cent from New Bedford to Paris, making a shrinkage in value of from \$1 to \$1.50 a pound. The bone here is worth from 50 cents for common to \$2.50 a pound for the prize bone, measuring from twelve to fourteen feet in length.

Towing Case Decision of Importance to Shipping men.—In rendering a decision in the case of the Globe Navigation Company, of Seattle, against the Russ Lumber & Mill Company, the United States District Court laid down a point on deviation that is of considerable moment to shipping men. The court holds that when a steamer takes another vessel in tow for a voyage the steamer does not deviate to assist a vessel in distress, which exigency is provided for in the charter parties and bills of lading.

The case at issue took place in 1905, when lumber freights were high and tonnage was in demand. The steamer Tampico loaded lumber at Everett for Southern California. The schooner Wilbert L. Smith, of the same fleet, completed a cargo for the same port at Ballard, and the Tampico took the schooner in tow, as it was desired to deliver as quick as possible.

Three days out, with the schooner still in tow, the Tampico encountered a storm in which the sea swept over her and carried away the greater portion of the deck load. As the underwriters refused to pay the loss, the consignees held out from the freight the value of the lost cargo. The owners of the steamer sued for this amount, but the court ruled against them, saying:

"Held that in taking the schooner in tow she (the steamer) unjustifiably deviated in the prosecution of her voyage under the charter, which deprived her of the right to the benefit of a provision of the charter party that the deck load should be at shipper's risk, and rendered her liable for the loss."

This ruling means that where owners dispatch a steamer with a tow, both with cargo, extra insurance must be taken to guard against the extra risk. The point is one of considerable interest and this is thought to be the first time it has been ruled upon by the courts.

Although the Globe Navigation Company loses this suit, lumber freights were so high at the time that the company made more money by towing the schooner south than if she had proceeded under her own sail and taken the usual time for passage.

Work to Be Started on Lake Washington Ship Canal.

—Major C. W. Kutz' corps of the United States engineers will superintend the dredging operations between lakes Union and Washington, and the initial work in the construction of the Lake Washington ship canal. Three bids were submitted for this work, the lowest being that of C. J. Erickson at 30 cents per cubic yard, provided the amount of earth to be removed reaches 270,000 cubic yards, otherwise 35 cents per yard.

Norwegian Steamer Eir Badly Damaged.—Surveys of the Norwegian steamer Eir, which struck while leaving Hoquim, have not yet been completed at Quartermaster Harbor, although it is known that the steamer sustained heavy damage both to her bottom and in her hold. Proposals will be asked for the repairs as soon as the exact extent of her injuries has been ascertained.

Portland.

Western Pacific Railway Company Has Purchased the Steamer Telephone.—The steamer Telephone, formerly owned by J. H. Middleton, has been purchased by the Western Pacific Railway Company for \$24,500, the new owners to take her as she floats.

Six years ago the Telephone was built at Portland at a cost of approximately \$70,000. With the exception of a few trips in the excursion business during the 1905 fair and three months' service between Portland and The Dalles two years later, the Telephone has been idle and an expense to her owners. That she is speedy no one will deny. Her engines are in first-class shape, and the cost of the machinery alone was more than was the price paid for the boat.

Repairs will be made on the boat after her arrival at San Francisco. To operate on the bay it will be necessary to equip her with fresh water tanks, and it may be necessary to stiffen the hull.

Independent Pilots Are Competing With the Port in Handling Steamers.—Captain Arthur Leighton, one of the Columbia River bar pilots not in the service of the Port of Portland, entered the field as an independent when he took the British steamship Bessie Dollar to sea. The Dollar was lumber-laden for North China ports, and took fuel at Comox, B. C. Captain Leighton accompanied the vessel to the British Columbia ports, and returned to Astoria by train.

As yet the pilots in the employ of the Port of Portland have had little to do. The only sailing craft to enter the river was the Matterhorn. A number of others are due within the next few weeks. Independents will be unable to handle sail craft, as they have no tugboats. There will be considerably less steam tonnage on the list this year than last season.

The port has run into another snag, and from a source that would naturally hardly be expected, as it is with reference to compulsory pilotage having been done away with on the Columbia bar. Recently a Norwegian steamship left out without a pilot under the direction of her master, and when the underwriters' association learned of it they entered a protest. That organization believes that it is unsafe for foreign vessels to enter or leave the river without a pilot, and while in this instance the vessel was not insured, her cargo was. To save money the owners of the vessel direct their captains to come in and go out without a pilot when possible. The underwriters have about decided to raise the marine insurance at the mouth of the Columbia unless the Port of Portland Commission makes the pilotage compulsory, and this new rate will be sufficient to drive shippers to patronize only those vessels that agree to take a pilot.

By threatening to engage a steam schooner to tow the American schooner Inca from Knappton to the sea if the Port of Portland insisted on collecting a pilotage charge for performing the service with the tug Wallulla the owners of the Inca gained their point. The Wallulla took her to the outside last evening, and it is said the owners of the schooner will have no pilotage bill presented to them. The Inca was loaded with lumber and bound for Australia.

It has always been customary for the offshore lumber carriers to pay for pilotage service at the mouth of the Columbia river. After this charge was paid the port was still on the same footing as Puget Sound. But with grain ships the situation was entirely different, the cost being greater here. In order to do away with this differential in favor of the Sound the O. R. & N. Company agreed to absorb the pilotage charge on grain carriers leaving the Columbia river. When the pilotage and towage service was taken over by the Port of Portland the commission put the same rule into effect—charging for piloting out lumber vessels but not for grain ships.

But before the commission took over the service the compulsory pilotage law was done away with by the Oregon State Legislature. Some of the owners of the lumber carriers now insist that they should no longer be obliged to be put to such an expense. The captain of the American barkentine *Hawaii*, which crossed out for Auckland, New Zealand, with a cargo of lumber the other day, protested against having a pilot aboard his vessel. But he was taxed for pilotage just the same, which amounted to \$116.

In view of the fact that the owners of the *Inca* succeeded in escaping a similar tax it is now declared that the operators of the *Hawaii* will undoubtedly take steps for having the pilotage charge which they were obliged to pay returned to them. In order to show no favoritism it is held that the Port of Portland will have to grant such a request should it be made. It is admitted to be a very mixed up affair all the way around. In some quarters the view is taken that the commission ought to have forced the owners of the *Inca* either to pay for pilotage or to charter a steam schooner to tow the craft out to sea.

Steamer Rygja Booked for 200 Tons of Flour for Japanese Ports.—Space for 200 tons of flour has been reserved on the first Portland and Asiatic steamer leaving Portland in September for Japanese ports. The *Rygja* is due to arrive from Chinese and Japanese ports about September 5th, and will sail about September 15th.

National Government Contemplating Extensive Improvements on Rivers and Harbors in Oregon.—Major J. F. McInloe, in charge of the United States engineers' operations in this district, had recommended improvements in rivers and harbors of Oregon which will call for appropriations of \$3,448,840. The largest item is for a jetty at the mouth of the Columbia river, for which \$1,560,000 will be required. The estimate for canal and locks in the Columbia river at Celilo is \$1,000,000. For Coos Bay and harbor \$380,000 is asked, and for the Willamette and Columbia rivers below Portland, \$175,000. At the end of the fiscal year \$2,013,578 was on hand for continuing the work now under way in this district.

Tax on Deserters No Longer Lawful.—In the form of head tax, thousands of dollars have been illegally collected from seamen at this and other ports, according to a recent decision handed down by the Circuit Court of Appeals of New York, a copy of which has been received by Norwegian Consul Cederbergh. The United States immigration office of Portland has been advised of the decision by Consul Cederbergh, who declares that hereafter he will oppose all efforts made by the government men to collect such head tax. Relative to the decision, the Norwegian Consul-General of New York wrote Mr. Cederbergh as follows:

"The United States Circuit Court of Appeals, Second Circuit (New York), has on the 15th inst. confirmed Circuit Court Judge Holt's decision of December 7, 1908, in the case of the United States government versus the

steamship *New York*, viz: That head tax cannot be collected for alien bona fide seamen who desert, as the immigration act does not apply to sailors which a ship carries to an American port with a bona fide intent to take them out again when she again leaves the port."

On receipt of the information, Consul Cederbergh went to the office of Immigration Inspector Barbour yesterday to confer with him about it, but Mr. Barbour had left for Puget Sound earlier in the day on official business. Notwithstanding the new interpretation of the statutes, it is said the immigration inspectors will proceed in the collection of the head tax as in the past. In that event the Norwegian Consul declares he will fight the proposition in the courts.

During the past two years every alien sailor arriving at Portland on a ship was taxed \$4 if he failed to go out on the vessel when she sailed. This sum was collected from the captain of the ship, in case of desertion, but the outlay eventually came from the pockets of the owners. The usual custom has been for the immigration inspectors to board a vessel immediately on her arrival from a foreign port and obtain the names of the sailors and a minute description of them. If they failed to go out on the ship when she got ready to leave the master was obliged to pay the regulation price of \$4 a man for each of the original crew missing.

As a matter of fact, more than half the sailors arriving on British and German ships desert after having been in port but a short time. Many of them leave from all of the other vessels. In the course of a year the revenue from this source amounts to a considerable sum. The outcome as a result of the decision will be awaited with interest by marine men, not only here, but all over the world.

Gasoline Engines in Pilot Schooner Joseph Pulitzer Are Failures.—After expending several thousand dollars to place the schooner *Joseph Pulitzer* in condition for bar service the Port of Portland Commission will again overhaul her to rectify her defects. The schooner is not considered safe in bad weather.

The Traffic of Portland for July.—Lumber exports for the month of July, both coastwise and foreign, have set a new mark for Portland in that business. In addition to the lumber dispatched three immense log rafts were dispatched from the lower river for San Diego and San Francisco. Foreign shipments amounted to 15,475,877 feet, valued at \$148,187. Coastwise shipments amounted to 9,600,000 feet. For July, 1908, the foreign shipments amounted to 14,217,115 feet, and the coastwise to 5,375,000 feet.

Figures compiled by the Merchants' Exchange of Portland place the California shipments of wheat at 107,938 bushels, and the flour at 21,247 barrels. The wheat shipments are short of those of the corresponding month of last year, but the flour exports are a trifle heavier. From Puget Sound the California shipments of both wheat and flour were considerably less than those from Portland, being 70,362 bushels of wheat and 22,373 barrels of flour. Total shipments from Portland and Puget Sound were (flour included), 254,166 bushels and 254,628 bushels respectively.

Flour shipments for the month were cut down to 11,198 barrels, valued at \$51,326. Not a pound of wheat or barley was sent foreign. During the corresponding month of last year the flour shipments totaled 45,266 barrels. During July, 1908, one cargo of wheat was dispatched foreign.

Columbia River Lightship's Position to Be Changed.—Steamship masters operating vessels plying in and out of the Columbia river in the coastwise traffic have presented a request to Captain J. M. Ellicott, inspector of the Thirteenth Lighthouse District, asking for a change in position of the Columbia river lightship and the whistling buoy. Captain Ellicott is in favor of granting the request, and will refer the matter to the Lighthouse Board with his approval.

The change, which would be of inestimable value to navigators, will consist of shifting the light vessel E. S. E. a distance of one and three-eighths miles from the present position. This would place the ship in direct line with the Canby light and distant therefrom seven and one-fourth miles. A ship entering the river at night would be able to steer a course direct from the lightship for Canby light.

From its present position the whistling buoy will be shifted to the southeast and will line up between the light vessel and Canby light, if the changes are carried out. The bell buoy now marking the outer entrance to the south channel and also the south channel buoy will be discontinued. With the exception of the spit buoys, all markings on the old north channel will also be discontinued.

The annual survey of the Columbia river bar was completed in June, and showed a gradual deepening of the channel, due to the direct influence of the jetty. The south channel is becoming narrower and deeper. The lightship and whistle buoy are now off any range that would safely carry a ship across the bar.

On receipt of approval of the changes from the Lighthouse Board the work will be done immediately.

Tacoma.

Steamship Tacoma Maru Inaugurates New Service.—The Japanese steamer Tacoma Maru arrived in port August 1st from Yokohama on its maiden trip. The steamer was one day ahead of its schedule, making the run from Yokohama to Cape Flattery in 13 days 22 hours and 18 minutes. The elaborate plans for the steamer's reception were completely upset by her early arrival.

The Tacoma Maru brought about 4,000 tons of Oriental freight, which included silk valued at \$325,000. The service will be monthly, the second sailing from Hong-kong being the Seattle Maru, which will make Seattle its American port of call. The cargo of the Tacoma Maru includes heavy shipments of raw silk and tea.

Vancouver, B. C.

Privy Council of England Rules in Case of Local Importance.—In the case of Bow, McLachlan & Company of Scotland and the Union Steamship Company of Vancouver the Privy Council of England rendered a decision for the plaintiffs. The case was tried in five Canadian courts from the admiralty hearing in Vancouver to the Supreme Court of Canada at Ottawa, and the verdict was always in favor of the defendants.

The plaintiffs were builders of the steamer Camosun, a liner now plying between Vancouver and Prince Rupert. They built her in 1906. On her way out she was forced to put in to Montevideo and San Francisco for repairs. The repair bill amounted to \$20,000. The Union Company refused to pay for the vessel, which was seized by an order of the admiralty court and later released.

The decision by the Privy Council is of great importance to marine interests all over the coast, because it restricts the power of the Canadian admiralty courts. The Vancouver judges who were sustained by the most eminent jurists of Canada, decided in favor of the Union Company's counter-claim for the repair bill.

The Privy Council decided that this, though a marine action, should be a suit in an ordinary court of law, not an admiralty court, and threw out the claim.

United Wireless Telegraph Company Will Probably Acquire All Dominion Stations.—In connection with proposals by the United Wireless Telegraphs for the acquisition of the Dominion stations in this province, it is stated that the offer is for maintenance and operation, without expense to the government, and free transmission of public business, the operating company in compensation enjoying the advantages of the use of stations, costing approximately \$25,000 each, and a monopoly of commercial business which is capable of being developed to very large proportions. At present the rules preclude the acceptance by the government of private business, which naturally constitutes the bulk of business offering, the service being in consequence a charge upon the public revenue of from \$8,000 to \$10,000 per annum; whereas by the acceptance of private business this cost to the country might very easily be turned into a source of profit.

Plan Tax on Fuel Oil.—The Honolulu Merchants' Exchange is taking up the question of levying a shippers' wharf tax on the fuel oil imported into this Territory. Since the announcement that a tax would be levied on the coal, lumber and fertilizer coming to Hawaii, for the benefit of the sanitation and promotion of the Territory, it has been called to the attention of the Merchants' Association that the fuel oil is coming in untaxed. The amount of money which would be brought in by such a tax would be large. It is estimated that nearly a million barrels of oil are imported every year from California. Coal pays a tax of two and one-half cents a ton, and since five barrels of oil equal a ton of coal in cost, the tax on oil will probably be half a cent a barrel. So that the tax, if agreed on, will bring in \$5,000 a year.

San Pedro.

Report for Dredging Operations for the Fiscal Year Ending June 30th.—Captain R. A. Crawford, engineer in charge of the U. S. dredger San Pedro, which is now at work on the 1,600-foot turning basin at the upper end of the inner harbor, has recently made his report for the fiscal year ending June 30th, in which he shows:

That the amount of earth moved was 819,234 cubic yards; cost of operation and maintenance, including repairs and ten per cent for depreciation of plant, \$72,348; cost per cubic yard, .0883 cents; average distance pumped, 2338 feet; best bid ever received from a private contractor prior to the construction of this plant, sixteen cents. Some other contracts are being executed now at a contract price of eleven cents, but it is thought that the government ownership and operation of this dredger has had a healthy influence on the prices which other cities and harbor improvers have to pay.

Long Beach Boat Owners Enter San Pedro Towing Business.—Two Long Beach launches, Virginia and Nora, have entered the field in the San Pedro towing business, and they cut the price of towing a schooner in and out of the harbor from \$200, the price charged by the Banning tug, to \$100.

Honolulu.

Will Prosecute Captain F. Tollefson of the Power Schooner Rainbow.—Captain F. Tollefson, master and owner of the power schooner Rainbow, has been arrested and charged with manslaughter under the statute used by the prosecution in the case of the Slocum disaster in New York.

The Rainbow, while carrying an excursion party of twenty-five children and a number of women, capsized off the island of Molokai, near Puckoo harbor. All the passengers and numbers of the crew were saved, but one woman died shortly afterward from shock. It is alleged by the authorities that the schooner, which went to the bottom, was not provided with the proper amount of life-saving apparatus.

Eureka.

Steamer Cascade to Be Sold.—McCormick & Company, owners of the Yosemite and Cascade, wish to sell the steamer Cascade because it is too small for profit on the long run between San Francisco and Seattle. The Cascade is a new boat capable of carrying 500,000 feet of lumber. The Cascade Lumber Company of Mendocino, so it is stated, is contemplating the purchase of the Cascade, and it is expected McCormick & Company will order another large steamer to be built at Bendixsen's on this bay as soon as the Cascade is sold, the new steamer to be placed on the San Francisco-Seattle run.

NOTES.

British Regulations for American Ships.—Commissioner Chamberlain of the Department of Commerce and Labor has sent the following circular letter to all collectors of customs of the Pacific Coast:

This bureau is requested to give publicity to the fact that on and after October 1, 1909, any vessel of the United States trading to a port of the United Kingdom will be obliged to be marked with the load line, according to British regulations. Those regulations can doubtless be found at the office of the British Consul. You will bring this matter to the attention of owners and masters of vessels of the United States in your district trading with the United Kingdom, if there are any.

New Regulation Regarding Craft Measuring a Fraction Over Fifteen Ton.—In issuing marine documents to vessels, that is, registers, enrollments and licenses, fractional parts of a ton are omitted. For instance, if a vessel measures 15.99 tons, the Custom House records show 15 tons only. The Commissioner of Navigation has ruled that, while the omission of the decimal part of a ton is authorized in marine documents, its omission is not permissible under the inspection laws relating to the inspection and licensing of officers of vessels of certain tonnage. For instance, all motor vessels above 15 gross tons are subject to all the provisions of law relating to the inspection of hulls and boilers and requiring engineers and pilots, while such vessels of 15 gross tons or less must merely carry a life preserver for each passenger, and be in charge of a licensed operator, but no examination is required to obtain a license to operate such boats of 15 gross tons or less. Heretofore motor boats measuring 15.99 gross tons have been regarded as 15 tons only.

New Equipment Required by the Department of Commerce.—In a decision by Assistant Secretary McHarg of the Department of Commerce all American steamship companies will be required to equip the boilers of their vessels with independent water feeds. This decision will take effect on October 31st, and if by that time steamers are not so equipped the companies affected will have their license revoked. The new equipment will materially reduce the danger of an explosion.

Practically all steamers on this coast are equipped with this apparatus, according to Inspector Birmingham.

"The decision," said Birmingham this morning, "does not really make a new rule. The rule for independent feed equipment has long been in the book, and I suppose that Assistant Secretary McHarg merely wished to emphasize it.

"The rule, however, only applied to new vessels, leaving out those which were constructed before the rule was made. It may mean that the recent decision will apply to everything with steam, but even if so it will hardly affect San Francisco, as practically every vessel here or touching here has independent feed for its boilers."

Rules Relating to Fifteen-Ton Craft Will Be Enforced.—Customs authorities have been notified that all vessels of fifteen tons gross register or over will be compelled to comply with all regulations imposed upon any sea-going vessel of larger tonnage. This rule will impose stricter requirements and greater expense in operation on craft heretofore classified as fifteen-ton vessels, but in reality weighing some fraction over. Two licensed officers will have to be carried, and all necessary life-saving equipment.

SHIPBUILDING NOTES.

Union Iron Works.

R. H. steamer Texan, P. M. steamer Mongolia and S. O. British steamer Dakota were at works for general repairs.

Putting S. O. barge 91 in good sea-going shape.

Contract started for general repairs and drydocking on the U. S. A. T. Sheridan.

S. S. Newport, S. S. Maveric, S. S. Korea and S. S. Kansas City were at works for engine, boiler and hull repairs.

Quartermaster's tug Mifflin at works for repairs to cargo booms.

Schooners Ruby and Alert at works for drydocking, cleaning and painting.

S. S. San Juan and S. S. Nevadan at works for general repairs.

Steam schooner Rainier was on drydock to draw tail shaft, have new propeller fitted and hull repairs.

S. S. Virginian at works for general repairs.

U. S. cruiser California was on Hunter's Point drydock July 25 for cleaning and painting.

S. S. Algeria was at works for engine, boiler and hull repairs.

Union Iron Works has secured contract to dock, clean and paint the army tug Slocum.

Steam schooner Bandon receiving drydocking and hull repairs.

U. S. cruiser Maryland on Hunter's Point drydock for miscellaneous repairs.

The floating pontoon building for the Bremerton navy yard at Puget Sound was launched August 4th. The pontoon will be used to support a 100-ton derrick.

S. S. Tonawanda receiving engine, boiler and hull repairs.

John Twigg & Sons Co.

Building a launch for Dunbar Hansen Co. The dimensions are: 32 ft. over all and 6 ft. 6 ins. beam. It is a cruising type work boat and will be fitted with a 16 H. P. local engine. The boat is designed to make 11½ miles an hour.

Building a fish launch for Busalacchi Bros. of Rio Vista, Cal. The dimensions are: 45 feet in length, 9-foot beam and 48-inch draft. The pilot house is forward of the engine room, and steering gear is controlled from the pilot house. The cockpit is fitted with seats all around. The boat will be equipped with a 40 H. P. Standard.

Geo. W. Kneass.

Building tender for the schooner Benicia, which will be equipped with a 3 H. P. local engine.

Building two whale boats for the Coast and Geodetic Survey at Manila.

Building two wooden life-boats for a 125-foot gasoline schooner, which is in course of construction at Coos Bay.

Building ten metallic life-boats, 20 feet in length.

Wm. Cryer.

Building launch for the Gorham Engineering Co. This boat is 25 feet long and 7-foot beam and will be fitted with a 6 H. P. heavy duty Gorham engine. It will be sent to San Pedro when completed.

Sonoma Land Co. having pleasure launch built for up the river. The boat is 22 feet in length, 6½-foot beam and will be fitted with a 4 H. P. Standard.

C. A. Smith.

Building 16-foot yacht tender which will be sent to Honolulu. The tender will be equipped with a 3½ H. P. Gorham.

Government Dredge Chinook to be Repaired.—Proposals will be asked for repairs to the Government dredge Chinook, which is stationed at Portland. The bids will be opened about August 20th. Instead of the boilers being made, the shells of the present ones will be retained and new tubes put in. She will be converted into an oil burner, and releasing grates will be used instead of the present manner of discharging the cargo at sea. These two changes will permit the dredge to do better work, from the fact that so much delay and expense will not be necessary for coaling and the tanks can be quickly relieved of their load after reaching deep water. Her repairs will cost about \$125,000 of the appropriation of \$200,000, leaving \$75,000 for operating her during the coming season, and which will be sufficient.

Will Soon Launch Klamath at Eureka.

The work on the new steamer Klamath, which is being constructed at the yards of the Bendixsen Shipbuilding Company at Fairhaven for McCormick & Company of San Francisco, is progressing steadily and within about six weeks it is expected the launching of the new steamer will take place. Several months ago the officials of the shipbuilding company stated that they would have the new steamer ready for the water by the middle of September and their estimate of the time it would take to complete the vessel will doubtless prove correct.

At present the hull of the vessel is taking something more than a definite form, and is beginning to look much like a steamer. Within a short time work will be commenced on the cabins of the vessel, the plans for the deck and cabins having been brought to Eureka several weeks ago. When the Klamath is launched she will be loaded with lumber on this bay and towed to San Francisco where her engines will be installed, and early in the winter she will be ready for service.

Plans for a new bar tug, for the Port of Portland Commission, have been completed. Charles Norlin, consulting marine engineer of the Port of Portland, has completed plans for a new bar tug and upon being approved by Superintendent Reed of the bar service, bids will be called for.

The contract for its construction will be let soon and she will be built on this Coast, as it is believed money will be saved by so doing. The plans show a boat on the lines of the tug Wallula and about twelve feet longer and with about 900 H. P. It will be of modern construction in every way and includes all that is known to be

successful in ocean and bar towing. When completed on these lines and plans the tug will be the most powerful on the Coast and adapted for the work better than the tugs now in service, as her towing machines will be built into her hull and her oil tanks placed in position at the same time.

Bids to Be Called for a New Fleet Collier.—The new fleet collier, for which bids are soon to be opened at the Navy Department, will be the latest model of that type of auxiliary naval vessel. The naval constructors have been consulting foreign sources of information on the subject and the collier will represent a new device in design and construction of that sort of ship. The dimensions are: Length, 520 feet; beam, 65 feet; draft, 27 feet 6 inches, and displacement, 19,360 tons. The collier will carry 12,500 tons of coal, as well as 1,000 tons of oil. The latter will be used as fuel for the fifteen torpedo boat destroyers which are nearing completion or are under construction. The speed of the collier will be fourteen knots. It is not intended to place any armament on the collier beyond, perhaps, a few rapid-fire guns to repel torpedo attack. It has not been decided whether to install a device for coaling at sea for the new collier. The experts differ on that subject, some of them maintaining that under the new conditions of naval engagement it will be necessary to have more than the ordinary method of transferring fuel from the collier to a fighting ship. Coaling at sea is conducted with considerable trouble and at much reduced speed under the most favorable circumstances of weather and sea. It is intended to add this collier to the Atlantic fleet.

Hospital Boat Launched.—The launching of the United States steam vessel Wightman, constructed by the International Contract Company for the use of the quarantine officers at Port Townsend, took place at the Tregoning Boat Company's yards at Ballard, July 18. She is 72 feet long, with a beam of 14 feet and equipped with the direction of Lieut. W. E. Hall and Lieut. R. B. Adams, of the revenue cutter service, and cost \$20,000.

The Hammond Lumber Co. is building a new stern-wheel for themselves, to run from Eureka to Somoa. The present service to Somoa is by means of the stern-wheeler Antelope, but the gasoline launches running on Humboldt Bay are taking the business and making the stern-wheeler unprofitable. The company decided to build a vessel that would eclipse anything on the bay for comfort and speed and thereby win back the trade that had left the present boat. The engines from the present boat are to be used, together with the boiler. Properly adjusted, they develop about 200-h. p. at 35 r. p. m., which should propel the new vessel at about 12 miles per hour. The dimensions are: Length over hull, 100 feet; depth, 5 feet 6 inches; beam, 22 feet 8 inches; beam over guard, 26 feet 5 inches; draft, 2 feet 11 inches. The vessel has a round bridge and moulded bow and stern. Has three decks, main, saloon and awning. On the main deck is a space fitted up for teams and horses. The ladies' cabin on the saloon deck is beautifully fitted up with upholstered seats. The men's cabin is fitted up with slatted seats. Sleeping quarters for the watchman are on the lower deck, and the captain and crew are to sleep ashore. Seats will be fitted all around the saloon deck so the passengers can enjoy the fine weather. The company is sparing no expense to make the vessel the finest of its class on Humboldt Bay. The plans were made by D. W. and R. Z. Dickie.



YACHTING SECTION



Edwin M. Sass and Carl Barion, Native Sons, have built a gasoline launch which is said by boatmen along the waterfront to be a very fine vessel, attractive as well as seaworthy. The boat is 38 feet in length by 9 feet in breadth, has an engine of 18-horse power, and was built by the young men at Sixth and Channel streets. The boat is named Two Natives. She was launched last Saturday, and the following day had a satisfactory trial trip.

* * *

Nearly half of the boats and pleasure launches on the tidal canal and estuary belonging to Alameda residents are tied up as the result of a new Federal law requiring that all such vessels carry a foghorn, bell or whistle.

As few of the launch owners have complied with the provisions of the law, they are afraid to take them out of the boathouses lest the Federal inspectors seize the craft and impose a heavy fine on the owners. The fine may be from \$100 to \$500.

Several launch owners have been caught by the inspectors and released with the warning that if caught disobeying the law again the maximum penalty will be imposed.

The boating enthusiasts declare that since the law went into operation the demand for bells, horns and whistles has exceeded the supply, and that not an article of the kind can be purchased in any of the bay cities.

* * *

Four yachts entered in the annual ocean race of the South Coast Yacht Club over a course which extends seaward around Catalina island, and is about 60 miles long, finished in San Pedro last night. The sloop Mah Pe, Captain Joseph Pugh, made the course in 21 hours 45 minutes 20 seconds; the sloop Mischief I, 23 hours 23 minutes 10 seconds; yawl Minerva, 24 hours 14 minutes 30 seconds; yawl Arrow, 29 hours 20 minutes 5 seconds.

The time allowances have not been figured out under the new measurements, but according to the regatta committee the Minerva had 30 minutes leeway over her time allowance from the Mah pe and 20 minutes grace in addition to the handicap of the Mischief.

The Minerva beat the Arrow by more than five hours' actual time, and wins the yawl cup. The Minerva also captured the Montgomery cup, which was the official race and for which the Mah Pe was not eligible. This yawl also gets the Whitney cup.

* * *

A romance and a bridal crew went with the trim yacht Nautilus, flagship of the Aeolian Yacht Club of Alameda, one of a flock of boats that came to an anchorage off the Sacramento Boat Club's float on July 19.

The captain's name is Carl Strom and he's commodore of the Aeolian band of buccaneers. His bride is his sole companion. Beating against wind and tide up the river they alternated at the wheel of the long, slender craft, weathering them all just as they expect to weather all the storms of life.

This romantic cruise does not tell the whole story of plighted lives by any means. It had its origin in an accident to the gallant captain. For while trying to moor the Nautilus one day in April, Captain Strom's hand was painfully crushed. Treatment at a hospital

followed and in this way the captain met Miss Lenora Nelson, the nurse.

Out of the friendship thus gained grew a love affair and not very long afterward a betrothal. To the surprise of a number of guests sailing the bay in the Nautilus, Captain Strom one afternoon announced the engagement. This was followed by their marriage on Sunday, July 11th.

EVENTS OF THE YACHT CLUBS.

To and Including August 22.

San Francisco Yacht Club, H. A. Russel, secretary; J. R. Hanify, commodore; club house, Sausalito.
 Saturday, August 7—Open.
 Sunday, August 8—Open.
 Wednesday, August 11—Members' night at club.
 Saturday, August 14—Cruise to McNears.
 Sunday, August 15—Return to Sausalito.



Schooner Martha—Commodore Hanify.

Wednesday, August 18—Members' night at club house.
 Saturday, August 21—Open.
 Corinthian Yacht Club, Dr. J. L. McMahon, secretary;
 W. Frank Stone, commodore; club house, Belvedere, Cal.
 Saturday, August 14—River trip.
 Sunday, August 15—River trip.
 Saturday, August 21—Return.
 Sunday, August 22—Return.
 California Yacht Club, E. A. Chamberlain, secretary;
 E. S. Broadwater, commodore; club house and anchorage,
 Brooks Island.
 Saturday, August 7—Rendezvous foot of Hyde street.
 Sunday, August 8—Cruise to Bolinas Bay.
 Saturday, August 14—Open.
 Sunday, August 15—Open.
 Saturday, August 21—Open.
 Sunday, August 22—Cruise to McNears.
 Golden Gate Yacht Club, W. Carlisle, secretary; F. Mayno, commodore; club house, Sausalito.
 Sunday, August 8—Race to Santa Cruz.
 Sunday, April 15—Fleming and Nodder cup.
 Sunday, August 22—Open.

FOREIGN-BUILT YACHTS OWNED BY AMERICANS.

The new tariff bill, as reported on July 30 by the conference committee, contains the following provision for the taxation of foreign-built yachts now or hereafter owned or chartered by American citizens:

"Sec. 37. There shall be levied and collected annually on the first day of September by the collector of customs of the district nearest the residence of the managing owner, upon the use of every foreign-built yacht, pleasure boat, or vessel, not used or intended to be used for trade, now or hereafter owned or chartered for more than six months by any citizen or citizens of the United States, a sum equivalent to a tonnage tax of seven dollars per gross ton.

"In lieu of the annual tax above prescribed the owner of any foreign-built yacht, pleasure boat, or vessel above described may pay a duty of thirty-five per cent ad valorem thereon, and such yacht, pleasure boat, or vessel shall thereupon be entitled to all the privileges and shall be subject to all the requirements prescribed by sections forty-two hundred and fourteen, forty-two hundred and fifteen, forty-two hundred and seventeen, and forty-two hundred and eighteen of the Revised Statutes and acts amendatory thereto in the same manner as if said yacht had been built in the United States, and shall be subject to tonnage duty and light money only in the same manner as if said yacht had been built in the United States.

"So much of section five of chapter two hundred and twelve of the laws of nineteen hundred and eight, approved May twenty-eight, nineteen hundred and eight, as relates to yachts built outside the United States and owned by citizens of the United States is hereby repealed.

"This section shall not apply to a foreign-built vessel admitted to American registry."

Under Section 37 the following well-known yachts on September 1st will be subject to the following annual tax:

Owner	Yacht	Gross Tons	Tax
James Gordon Bennett	Lysistrata	1,942	\$13,594
W. K. Vanderbilt	Valiant	1,823	12,761
A. J. Drexel	Margarita	1,780	12,460
Mrs. Robert Goelet	Nahma	1,739	12,173
Morton F. Plant	Iolanda	1,647	11,529
Joseph Pulitzer	Liberty	1,607	11,249
Eugene Higgins	Varuna	1,573	11,011
George J. Gould	Atalanta	1,303	9,121
Roy A. Rainey	Cassandra	1,227	8,589
Fred W. Vanderbilt	Warrior	1,097	7,679
C. K. G. Billings	Vanadis	1,091	7,637
G. W. C. Drexel	Aleodo	983	6,881
L. V. Harkness	Wakiva	853	5,971
Cornelius Vanderbilt	North Star	818	5,726
C. Ledyard	Diana	785	5,495
C. W. Harkness	Agawa	602	4,214
John L. Livermore	Venetia	588	4,116
Mrs. O. B. Jennings	Tuscarora	540	3,780
H. C. Pierce	Yacona	527	3,689
Henry Walters	Narada	490	3,430
F. L. Leland	Safa-el Bahr	487	3,409
Edmund Randolph	Apache	451	3,157
Ralph E. Towle	Athena	447	3,129
A. E. Tower	Erl King	443	3,101
W. S. Kilmer	Remlik	432	3,024
Fred G. Bourne	Delaware	785	5,495
Fred Gallatin	Riviera	407	2,849
Total		26,467	\$185,269

Besides the above, Americans own about fifty smaller foreign-built yachts on which the annual tax will range from \$75 to \$2,800, amounting to about \$50,000 more, or in all about \$235,000 annual revenue from this source.

American-Built Yachts.

Among the principal yachts built by American labor which do not have to pay the tax are:

	Gross Tons
Howard Gold's Niagara	1,433
O. H. Payne's Aphrodite	1,147
J. P. Morgan's Corsair	1,136
P. A. B. Widener's Josephine	974
James J. Hill's Wacouta	863
Archibald Watts' American	851
A. H. Burrages' Aztec	848
J. H. Ladew's Columbia	682
Wm. B. Leeds' Noma	763
H. H. Rogers' Kanawa	475
John Hays Hammond's Atreus	552
A. V. Armour's Utowana	414
E. H. Harriman's Sultana	390
Hiram Sibley's Thetis	407

John Hicks, retired United States Minister to Chili, states that an increase in the exchange of commodities between Chili and this country depends upon the establishment of direct steamship connections between the United States and Chili, on either the Atlantic or the Pacific side.

While many sailing ship companies claimed to have made no profit last year, even if they escaped actual loss, the Hamburg Aktien Gesellschaft did not fare so badly. This company owns the "Alster" line of sailing ships.

The annual report of the "Alster" fleet shows that a net profit of 195,807 marks was cleared in 1908, which, while a decrease from 241,829 marks for 1907, is a good showing, considering the generally depressed condition of shipping. A dividend of four and one-half per cent was declared as against six per cent for 1907. The report says in part: "With the difficulty of securing profitable homeward freights last year and the expenses, such as harbor dues and insurance, much heavier, the profits would have been much greater but for the unusually long voyages, slow dispatch in foreign ports and costly casualties to two vessels. The directors consider the prospects for 1909 not unfavorable. Most of the ships are chartered at satisfactory outward rates. The company saved 27,876 marks by the self insurance system. The book value of the fleet is 1,695,000 marks." This company owns and operates eight large square riggers.

Hereafter, consignees shall be obliged to indicate exactly, over their own signatures, on the reverse side of the shipping orders and declarations which they may present at the customs, the place of origin as well as the destination of all merchandise imported into Turkey.



CHARTER MARKET.

While the charter market is far from lively, grain rates are keeping up to the union figure of 27 shillings 6 pence from Puget Sound, and 22 shillings 6 pence for wheat, 23 shillings 9 pence for barley from San Francisco.

Reports from the wheat belt continue encouraging, and there is every indication of a busy export season. The tonnage already engaged will be sufficient to handle the business for the first month or two, and shippers expect that the inbound vessels will supply sufficient space to care for the balance. There is a large amount of steam tonnage headed for the North Pacific, while exporters can draw from the fleet of disengaged sailing ships lying on the coast.

The California export season is now on in earnest, the British ship *Wayfarer*, first of the fleet from San Francisco, having cleared for the United Kingdom with a cargo of barley last week. It will be two months before the first wheat carrier is dispatched from Puget Sound.

Reports from California indicate that the wheat crop is light and the yield of barley is not fulfilling expectations. However, chartering continues active.

Private mail advices from Adelaide, South Australia, under date of July 2, say: The Australian crop has been largely overestimated and stocks are getting into very small compass. South Australia seems to be the only state that has a surplus for export. It is expected that New South Wales will have to draw on South Australia or Victoria for supplies in September, and with Western Australia, Tasmania and Queensland also likely buyers, it goes without saying that the small South Australian surplus will probably be required at home. Splendid rains have fallen and a very large area has been put under cultivation. Wheat in all the States has a good start and the opening prospects are most favorable. With seasonable rains in August and September there will be a big export surplus once more.

Freights are dull and most of the handy sailers are making for Newcastle to load coal; for South Africa 18s was done and 21s for U. K. Parcel rates strong at 21s 3d to 22s 6d.

British schooner *Glenholm*, wheat, Columbia river thence to U. K. or Dunkirk at 27s 6d. Option to South Africa at 25s. American schooner *Annie E. Smali*, lumber, Puget Sound to Sydney at 30c; French bark *Montcalm*, wheat, Portland or Puget Sound to N. S., Antwerp or Denmark, at 27s 6d; British steamer *M. S. Dollar*, lumber, Columbia river to Orient; British tank steamer *Tonawanda*, refined oil, San Francisco to Orient; Norwegian steamer *Lincoln*, lumber, Grays Harbor to Panama; British schooner *Osborne*, wheat, Puget Sound to U. K., Antwerp or Denmark at 27s 6d; French schooner *Thiers*, barley, San Francisco to U. K., Antwerp or Denmark, at 23s 9d; British schooner *Windsor Park*, lumber, San Francisco to Melbourne; British schooner *Crown of Germany*, barley, to U. K., Antwerp or Denmark, at 23s 9d; British tank steamer *Dakota*, refined oil, San Francisco to Orient; British schooner *Pegasus*, barley, San Francisco to U. K., Antwerp or Denmark, at 23c 9d, option merchandise to London or Liverpool at 25c; American schooner *Sophie Christensen*, lumber, Grays Harbor to Guaymas; American schooner *Espada*, lumber, Grays Harbor to Guaymas; French bark *Bayard*, barley, San Francisco to U. K., Antwerp or Denmark, at 23s 9d, option Puget Sound loading at 27s 6d; Japanese steamer *Yowata Maru*, Siberian oak logs, Otaru, Japan, to Portland and later fir from Puget Sound to China; German

bark *Wandsbek*, new crop wheat, Portland or Puget Sound for U. K.; British bark *Celticburn*, new crop wheat, Puget Sound to U. K.; British bark *Compton*, new crop wheat, Puget Sound to U. K.

Among the fixtures reported by Hind, Rolph & Co., are the following: *Ville de Mulhouse*, 23s 9d, barley, San Francisco to Cork f. o. United Kingdom, etc.; *Nantes*, 27s 6d, Portland to Cork f. o. United Kingdom, etc.; *Comliebank*, 27s 6d, Portland to Cork f. o. United Kingdom, etc.; *Anne de Bretagne*, 23s 9d, barley, San Francisco to Cork f. o. United Kingdom, etc.

Wreck of the Coast Shipping Company's Steamer *Winnebago*.—A dense, impenetrable fog, such as is encountered in every sea, the heavy boom of wild, thundering waves; time, six bells in the middle watch; every man aboard assigned to duty at his post and keenly aware of his responsibility. Crunch, and the vibration which follows this dreaded noise at sea, steam issuing from the hatches, the darkness of the hour preceding dawn, the captain's order, "Clear away the boats," the sudden listing of the vessel aft or forward, starboard or port; all tell, in a brief manner, of lives in danger, and a wreck at sea. Incomplete, however, was the experience of those comprising the officers and crew, and the wife and children of Captain William Treanor during the last trip of the steel steamer *Winnebago*.

The steel steamer *Winnebago* was built at St. Claire, Michigan, in 1903, and for some time operated on the Great Lakes. She was purchased by the Coast Shipping Company, Dr. D. J. Oliver, president, and has been engaged in the lumber trade on the Pacific Coast for about two years, and was considered to be a typical lumber carrying vessel. She was, length over all, 200 feet; beam, 39 feet, and depth 13.7, with a gross tonnage of 1,045, with capacity of 1,500,000 feet of lumber, and was valued at \$200,000, was covered by insurance of \$120,000, of which \$20,000 was placed in San Francisco and the balance by British underwriters.

The *Winnebago* left Everett, Wash., July 27, with a full cargo, bound to San Diego via San Francisco. The weather was favorable until the morning of the 30th, when a dense fog was encountered. Precautionary measures were taken, when, at about 3 o'clock in the morning of the 31st ult. the vessel crashed on the reefs of Wash Rock, 100 miles north of San Francisco, and within 400 feet of the powerful Point Arena light and fog whistle.

Captain Treanor reached the deck amid the scene of greatest confusion, the vessel shortly after listing about 45 degrees to port, causing the cargo to be precipitated into the sea. Mrs. Treanor at this time had reached the deck, grasping her four young children, two boys and two girls, when the vessel began settling aft. Captain Treanor shouted to clear the boats. Self preservation and the excitement of the crew resulted in the mad rush for safety, but the calm, reassuring voice of Mrs. Treanor, still standing beside her husband and children, proved the miraculous influence which saved the lives of all on board, and permitted them to witness the sinking of the vessel in five fathoms of water, all of which occurred within thirty minutes.

The two life boats, containing Captain Treanor, wife and children, First Mate W. J. Macleod, Second Mate F. Mackintosh, Chief Engineer James Howell, First Assistant Engineer A. L. Goodman, Second Assistant Engineer H. Tucker, and the seventeen members of the crew, reached the life saving station at Point Arena at 7:30 in the morning, from where the first news of the wreck was sent to San Francisco.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS.

San Diego Entrance, California.—(List of Lights and Fog Signals, Pacific Coast, 1908, page 10, after No. 1, and List of Lights, Buoys, and Day marks, Pacific Coast, 1908, page 13).

Notice is hereby given that, about August 8, 1909, a black gas buoy, marked "38D" in white and showing a fixed white light during periods of 10 seconds, separated by eclipses of 10 seconds' duration, will be established in place of San Diego Bar Outside Buoy 3, a first-class can buoy now marking the location, which will then be discontinued. By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, Twelfth Lighthouse District.

NOTICE TO MARINERS.

Humboldt Bay Entrance, California.—(List of Lights, Buoys and Day marks, Pacific Coast, 1908, p. 37).

Notice is hereby given that North Jetty Outer End Buoy, 1, a black first-class spar, off the submerged end of the North Jetty, entrance to Humboldt Bay, California, heretofore reported adrift, was replaced July 23. By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, Twelfth Lighthouse District.

NOTICE TO MARINERS.

Captain J. Johnson of the steamer Ohio reports to the Branch Hydrographic office at Port Townsend that on July 14, 1909, one hour before low water in Tongass Narrows, Alaska, his vessel, drawing 24½ feet, struck and passed over a rocky ledge lying about one-quarter mile west (magnetic) from Channel Island, apparently between the soundings shown at 12 and 36 fathoms on C. S. chart No. 8094. On the return voyage Captain Johnson sounded in this vicinity but was unable to locate the rock in the short time at his disposal. He reports finding 9 fathoms where the chart shows between 12 and 1. fathoms, off the west end of Channel Island.

J. C. BURNETT,
Lieut., U. S. N., in charge.

Captain Herbert F. Beecher reports to the Branch Hydrographic Office at Port Townsend, Wash., that in the charts of Harbors on Chatan Straits and Admiralty Island, at the entrance to Murderer's Cove or Tyee as now called, the steam whaler Tyee Jr. hit a rock off Bartlett Point, just at the spot where the

chart gives 4½ fathoms and deepening. It is a pinnacled rock and is in the natural fairway entering or leaving the Cove after rounding Bartlett Point. Vessels coming from the northward rounding Point Gardner should not approach Bartlett Point nearer than two miles as the waters hereabouts are shoal and with many rocks marked in the summer by kelp. When Yasha Island is almost abeam haul for the outer beacon, situated on a rock at mouth of cove, leaving Bartlett Point on port bow some three or four cables off, then starboard slightly until outer beacon is well open on starboard bow, leaving the beacon off about 150 feet, thence take mid-channel to inner beacon and thence to dock of Tyee Cove. The channel in carries 15 to 20 fathoms until near inner-beacon, when it shoals to 7 or 8.

There is 20 feet on face of dock at extreme low water, June tides. Yasha Island, off entrance to Murderer's Cove, about three miles, must not be passed close to on its S. W. side, as a number of dangerous boulders lie off from it 500 to 600 cables. This side of the island in summer is well marked with kelp. The S. E. side is free from dangers at a distance off of 250 cables. On the south end of the island there is a rock that bares at half tide, off some 400 feet, and a ledge makes off the northern end for some 300 feet. Neither show much kelp.

J. C. BURNETT,
Lieut., U. S. N., in charge.

The evening class in navigation, in the Humboldt Evening High School at Eighteenth and Dolores streets, opened Monday August 2d. All those who desire instruction in navigation will please present themselves as soon as possible in order that no time may be lost in organizing and proceeding with the work. The first class, having finished Dead Reckoning, Chart Work, Nautical Almanac Exercises, etc., will at once take up the study of Latitude by Meridian Altitude. The second class will commence Nautical Almanac Work, and a new class will begin the study of Logarithms. The work will be made as easy and as practicable as possible.

AVERAGE CONDITIONS OF WIND AND WEATHER OVER THE NORTH PACIFIC OCEAN DURING AUGUST.

The main body of the ocean is covered by an area of high barometer, the maximum pressure (30.30 inches) occurring within the area 37°-42° N., 140°-155° W. Around this area the winds circulate in the same direction as the hands of a watch. NW'ly and N'ly winds prevailing between the maximum and the coast; NE'ly and E'ly

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	19	July 7	Channel getting broader.
Willapa Bay	27	July 8	No change in channel; 16 ft. M. L. W. in channel to South Bend
Columbia River	25	June 8	U. S. Engineer Survey.
Nehalem River	5	July 15	Bar buoy out of position; channel shifting South. 500 feet very narrow.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	14	June 2	Channel narrow: shifting to Southwest.
Siuslaw River	5½	July 1	Beacon on beach in line with so. side of gulch leads over bar.
Umpqua River	10	July 1	Channel is in good condition.
Coco Bay	17	Aug. 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	5	July 1	Channel close to north jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Humboldt Bay	20	July 1	21 ft. in straight channel 20 ft. in channel.
Klamath River	7	July 1	Channel straight.
San Pedro Bay	29	Apr. 15	No change in channel.
San Diego Bay	25	July 2	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

TIDE TABLE TO WEEK ENDING SATURDAY, JULY 31.

Golden Gate Entrance to San Francisco Bay.

AUGUST

Day of—		Time and Height of High and Low Water								
Month	W	Mo	T	H.	T.	H.	T.	H.	T.	H.
Full	Sun	1	5:05	1.3	12:20	4.9	16:55	3.0	22:51	6.3
	M	2	5:48	1.2	12:55	5.1	17:45	2.7	23:44	6.1
	Tu	3	6:30	1.0	13:33	6.2	18:40	2.5		
P	W	4	6:38	5.8	7:15	0.5	14:10	5.3	19:36	2.2
	Th	5	1:34	5.4	7:58	0.1	14:50	5.3	20:35	1.9
	F	6	2:40	4.9	8:48	0.8	15:30	5.4	21:40	1.6
E	S	7	3:50	4.4	9:34	1.5	16:15	5.4	22:40	1.3
	Sun	8	5:22	4.2	10:20	2.1	17:00	5.5	23:55	0.9
	M	9	6:57	4.0	11:20	2.6	17:53	5.7		
3d quar	Tu	10	1:07	0.4	8:17	4.0	12:20	3.0	18:47	5.8
	W	11	2:01	0.1	9:25	4.2	13:25	3.3	19:43	5.9
	Th	12	3:07	0.4	10:20	4.4	14:30	3.3	20:37	6.0
N	F	13	3:55	0.7	11:05	4.5	15:26	3.2	21:28	6.0
	S	14	4:37	0.8	11:46	4.7	16:18	3.1	22:15	6.0
	Sun	15	5:16	0.7	12:23	4.9	17:05	2.9	23:02	5.9
New	M	16	5:50	0.5	12:58	4.9	17:48	2.8	23:47	5.5
	Tu	17	6:23	0.2	13:27	6.0	18:32	2.6		
	W	18	0:32	5.2	6:54	0.3	13:52	5.0	19:15	2.4
A	Th	19	1:17	4.8	7:31	0.8	14:20	5.0	20:00	2.3
	F	20	2:02	4.4	8:02	1.2	14:44	4.9	20:48	2.1
	S	21	2:47	4.0	8:30	1.7	15:05	4.8	21:32	1.9
Full	Sun	22	3:48	3.7	9:00	2.2	15:33	4.9	22:22	1.6
	M	23	5:18	3.5	9:45	2.5	16:07	4.9	23:25	1.3
	Tu	24	6:56	3.5	10:38	2.9	16:53	5.0		
	W	25	0:26	0.8	8:08	3.7	11:43	3.2	17:52	5.2
1st quar										

Time used, Pacific Standard, 120th Meridian W.

0h—midnight 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.

N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

winds (the NE. trades) on the southern slope; SE'ly and S'ly winds to the west of the maximum; SW'ly and W'ly winds along the northern slope (to the eastward of 180°). The probable limits of the trades are shown upon the chart. In direction they will vary from North along the meridian 125° W. to East in mid-ocean. From 140° W. to 140° E. the freshest and the steadiest trades will be found between the parallels 15°-20° N., the average occurrence and strength (on the Beaufort scale), of the E'ly (N.-SSE.) winds between these meridians being as follows:

Longitude.	Latitude.	N.-SSE.	Average force.
140° W.—140° E.	5—10	68 per cent	3.2
	10—15	82 " "	3.3
	15—20	93 " "	3.4
	20—25	92 " "	3.3

In Honolulu the average prevalence of the trades during August is 30 days. Tedious calms, often extending over several days in succession, will be met throughout the belt 0°-10° N., 120° E.-180°; also throughout a triangular area, the base of which rests on the American coast from Cape San Lucas to the Gulf of Panama, the vertex lying in latitude 10° N., longitude 130° W.

Winds Along the American Coast.—Along the American Coast North of 45° the prevailing direction of the wind is NW. To the westward of 130°, W'ly and SW'ly winds increase in frequency. Between 40°-45° the prevailing direction is NNW., 65 per cent of all the wind between 125°-130° coming from the octant NW. to North. Between 35°-40° NW'ly winds prevail near the coast, becoming N'ly to the westward of 130°. To the southward of 35° and from the coast to 125° W. 50 per cent of the winds come from NW. and NNW. Gales will be rare. The percentage of winds from each quadrant (i. e., the number of hours in each hundred during which the wind may be expected to blow from some point in that quadrant) for the several 5-degree squares is as follows:

Latitude	Longitude.	N.-ENE.	E.-SSE.	S.-WSW.	W.-NNW.	Calms	Total.
°	° W	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.
50—45 N.	120—125	14	2	18	43	23	100
	125—130	9	7	12	53	19	100
	130—135	9	6	21	54	10	100
45—40 N.	120—125	22	5	6	47	20	100
	125—130	29	4	7	48	12	100
	130—135	31	5	12	38	14	100
40—35 N.	120—125	6	3	4	66	21	100
	125—130	23	2	3	63	9	100
	130—135	43	4	5	32	16	100
35—30 N.	115—120	2	4	5	55	34	100
	120—125	10	2	4	73	11	100
	125—130	46	2	2	41	9	100

Continuing southward NW'ly winds prevail between the coast and a line drawn from 20° N., 115° W., to 30° N., 125° W. Between 10° and 20° N., calms and light baffling winds will be encountered. South of 10° SW'ly winds will prevail, becoming successively S'ly and SE'ly and freshening as the equator is approached.

Area of Low Barometer—The Prevailing Westerly Winds.—The lowest pressure continues over the Eastern and China Seas, while over Bering Sea the pressure is still comparatively high. As a consequence S'ly and SE'ly winds are nearly as frequent as in July. The relative frequency of E'ly (N.-SSE.) and W'ly (S.-NNW.) winds throughout the several belts is as follows:

Latitude.	Longitude.	N.-SSE.	S.-NNW.	Total.
		Per cent.	Per cent.	
35—40 N.	145 E.—180	60	40	100
	180 —140 W.	79	21	100
40—45 N.	145 E.—180	51	49	100
	180 —140 W.	57	43	100
45—50 N.	145 E.—180	41	59	100
	180 —140 W.	41	59	100
50—55 N.	160 E.—180	39	61	100
	180 140 W.	36	64	100

SW. Monsoon.—The SW. monsoon maintains its full strength throughout August and September, extending northward to the latitude of Shanghai and eastward to the 130th meridian. It possesses neither the strength nor the persistency of the winter monsoon. Along the coast of lower China it blows frequently from the SE. quadrant. During its prevalence the land and sea breezes are also more clearly defined than during the NE. monsoon, and vessels hugging the coast are thus enabled to make headway against it.

Along the western coast of the Philippine Archipelago during August and September light SW'ly and W'ly breezes will prevail, becoming variable or falling calm after sunset. A steady breeze from any quarter during the entire day is an indication of the exist-

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ence of a typhoon, the center of the disturbance bearing two to four points to the left of the point toward which the wind is blowing. For Manila the average climatological conditions during August are as follows: Pressure, 29.76 inches; temperature, 80.8° F.; rainfall, 13.8 inches. During September they are: Pressure, 29.76 inches; temperature, 80.4 F.; rainfall, 14.9 inches.

Cyclonic and Anticyclonic Circulations.—Temporary areas of alternately high and low barometer, with attendant anticyclonic and cyclonic wind circulations, will be found moving in a general ENE'ly direction across the ocean in temperate altitudes. In advance of the former the weather is dry (large difference between the wet and the dry bulb), the barometer rises, the thermometer falls, the clouds (cirrus, cirro-cumulus, alto cumulus) tend to dissolve, and the general direction of the winds is polar or W'ly; in advance of the latter the weather is damp (small difference between the wet and dry bulb), the barometer falls, the thermometer rises, the clouds (cirro-stratus, alto-stratus, nimbus) tend to gather, and the general direction of the winds is equatorial or E'ly. The eastward passage of an anticyclone is marked by light slowly shifting winds and fair weather; of a cyclone, by rapidly shifting gales, rain and foul weather.

Frequency of Strong Winds.—During the month of August the average frequency of fresh and strong breezes throughout the higher latitudes is as follows:

Latitude.	Longitude.	Force 5 and over.	Force 6 and over.
°	°	Per cent.	Per cent.
35—40	145 E.—125	20	8
40—45	145 E.—125	23	10
45—50	145 E.—125	25	10
50—55	160 E.—140	33	16

Typhoons.—During August and September the occurrence of typhoons in east Asiatic waters attains its maximum frequency, and four, five, or even six of these storms may be expected during each of these months. Special attention is called to the tracks given (in red) upon the face of the Pilot Chart, showing the path followed by the storm center and the distance traversed in each twenty-four hours. One of the earliest signs of the approach of a typhoon is the failure of the barometer to respond to the diurnal oscillation.

Fog, Mist and Haze.—Coast of China from Hongkong to Shanghai, 4 per cent (i. e., 4 hours in each 100); Eastern Sea and Gulf of Pechili, 16 per cent; Japan Sea, 10 per cent; Bering Sea, 30 per cent; Gulf of Alaska, north of 55°, 18 per cent; south of 55°, 32 per cent; American coast, Puget Sound to San Francisco, 49 per cent; San Francisco to Cape San Lucas, 33 per cent; over the sea, as follows:

Latitude.	150° E.—180°	180°—160° W.	160° W.—140° W.	140° W.—125° W.
°	Per cent.	Per cent.	Per cent.	Per cent.
50—45 N.	46	46	32	25
45—40 N.	35	30	17	13
40—35 N.	17	8	6	17

Gales of Force 8 and Over.—The region of maximum frequency of gales (4 to 7 per cent) lies to the eastward of Luzon and Formosa between 15°-30° N., and eastward to 140° E. Over the ocean north of 40° the frequency is slightly greater than during July, but nowhere exceeds 5 per cent.

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SATURDAY, AUGUST 21, 1909

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NO. 16

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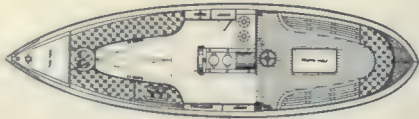
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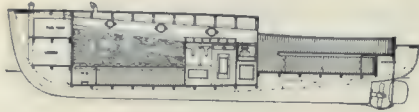
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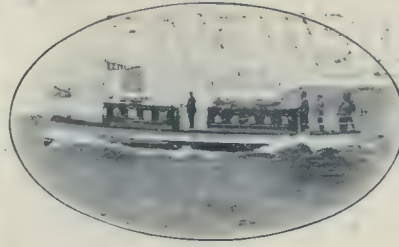
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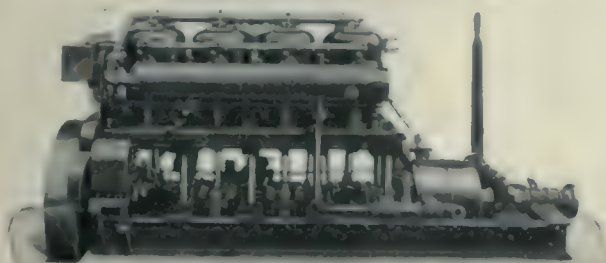
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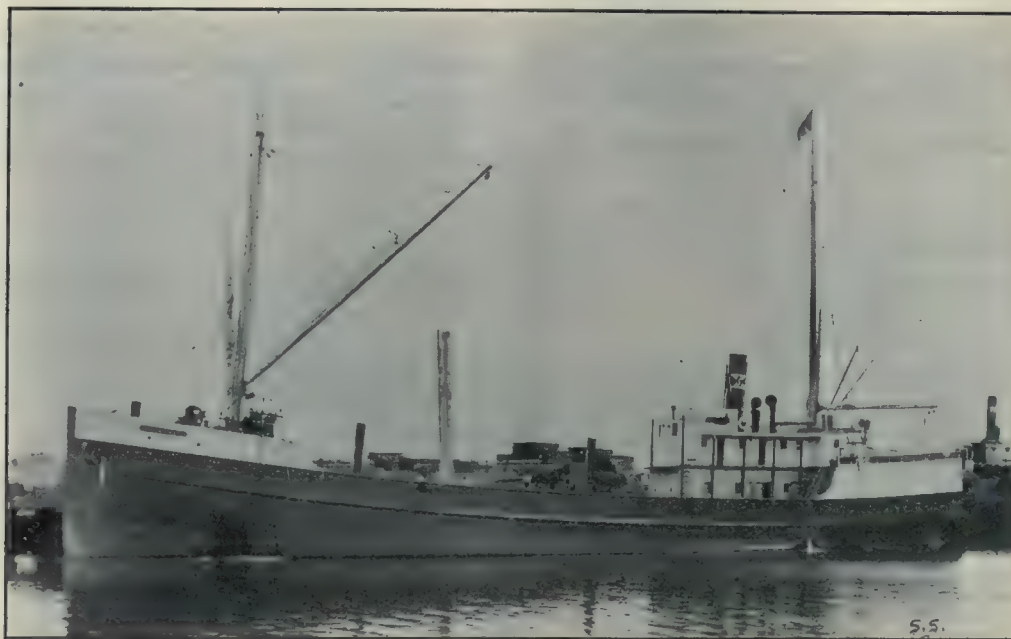
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Volume II

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THE NORTHWEST PASSAGE

What remarkable admixture of the elements has occurred since 1492 by which the world has profited by the daring enterprise and success of the intrepid navigators Columbus and Amundsen. How nearly akin in many respects were the difficulties that each encountered before embarking in the case of Columbus on a voyage of absolute uncertainty, and that of Amundsen to risk his life and those of his colleagues to the known dangers of the Arctic regions, where the melting icebergs of the northern sea remain imperishable monuments above the graves of one or more, and, in many cases, the entire crew, of those composing Arctic expeditions from the earliest known records to the present time.

The earliest precise information of Arctic exploration dates from the fourth century, B. C. when Pytheas, a Greek navigator and astronomer of Massilia (Marseilles) wrote a history of the northwestern countries of Europe. Pytheas claimed to have discovered the Island of Thule, on the Arctic Circle. The existence of this island was doubted until the ninth century, when some Irish monks claimed to have visited Iceland. The Monk Dicuil, writing about 825 furnished information that brethren of his order had spent several months at Thule, and who reported the non-existence of darkness at the summer solstice.

King Alfred* in his translation of Orosius, recounts personal interviews with Orthen, a Norwegian, and Wulfstan, concerning their respective voyages in the Arctic. The localities mentioned in these narratives are very obscure, but it is not unlikely that Orthen reached the North Cape and visited the coast of Lapland.

About the year 1001 the Icelandic Erik the Red colonized the west coast of Greenland and the Norsemen of the Scandinavian peninsula, commenced to extend their voyages beyond the Arctic circle along the western coast of that vast glacier-covered land. The Norse colonies in Greenland at Brattelid and Euiarsfjord, did not extend farther north than 65 degrees, but in the summer time the settlers carried on their seal hunting far beyond the Arctic circle. One of their runic stones was found in a cairn in latitude 73 degrees north, the inscription showing that the date of its being left there was 1235. Another expedition is believed, on good grounds, to have reached a latitude of 75 degrees 46 minutes north, in Barrow Strait, about the year 1266. Their ordinary hunting grounds were in 73 degrees north, to the north of the modern Danish settlement of Upernavik.

The last trace of communication between Greenland and Norway was in 1347. The black death broke out in Norway and the far-off colony was forgotten, while the settlers were attacked by Skrellings or Eskimo, who overran the West Bygd in 1349. Ivan Bardsen, the steward of the bishopric of Gardar, in the East Bygd, and a native of Greenland, was sent to convey help to the sister colony. A document, of which Ivan Bardsen was the author, has been preserved. It consists of sailing directions for reaching the colony from Iceland, and a chorography of the colony itself. It is the oldest work on Arctic geography, and is still valuable in the study of all questions relating to

the early settlements in Greenland. From 1400 to 1448 there was some communication, at long intervals, with the Greenland settlers, but during the latter half of that century it entirely ceased.

Small progress was made from this time in Arctic discovery until the expedition promoted by Sebastian Cabot, which expedition left England May 20, 1553, composed of the ships Bona Esperanza and Bona Confidentia, in command of the English navigator, Sir Hugh Willoughby, and the ship Edward Bonaventure, in command of Richard Chancellor, also an English navigator, and appointed pilot-general of the expedition. Becoming separated from the other ships in a gale off the Lofoden Islands, Chancellor managed to reach the White Sea, from whence he made his way overland to Moscow. Willoughby and

sixty-two companions perished on the coast of Lapland while in winter quarters.

In 1556 Stephen Burrough, who had served with Chancellor, sailed in a small puireece called the Searchthrift, reached Archangel, and discovered the strait leading into the Kara Sea, between Novazembla and the Island of Walgat. Accurate accounts of this voyage are carefully preserved. In May, 1580, the Association of Merchant Adventurers, of which Sebastian Cabot had been made governor for life, fitted out two vessels under Arthur Pet and Charles Jackman, with orders to pass through the strait discovered by Burrough, and thence to sail eastward beyond the mouth of the river Obi. Pet discovered the strait into the Kara sea, between Walgat and the mainland, persevering in his efforts, and returned to England. Jackman, after wintering in a Norwegian port, sailed homeward, but was never heard of again.

Sir Martin Frobisher, an English navigator, was the first to attempt the discovery of the northwest passage. Frobisher sailed in the spring of 1576, with two vessels, the Gabriel and Michael, each of about 25 tons. The Michael parted company in the Atlantic, the voyage being continued in the Gabriel alone. Sensational accounts of the discovery

of gold while on this voyage led to much larger expeditions during the following two years. The first expedition led to the discovery of Frobisher Bay (Frobisher Strait). Frobisher contended that two or more wide openings leading to the westward existed, between latitudes 60 and 63 degrees, on the American coast.

John Davis, an English navigator, made several attempts to discover the northwest passage, commanding expeditions respectively in 1585-86-87, on the first of which he discovered Davis Strait. Davis was one of the most scientific Arctic explorers up to this time, and his writings contain able arguments in favor of the discovery of the northwest passage. In 1592 Davis discovered the Falkland Islands, and lost his life at the hands of Japanese pirates in 1604, while on a voyage to the East Indies as pilot of the ship Tiger.

The trading nations of Europe were at this time forced into the discovery of a northeast passage by which to conduct commerce with Asia, this being an imperative necessity for the reason that the routes via the Cape of Good Hope and the Magellan Strait were exclusively under the control of Spain and Portugal.



GJOA

On the way to her final resting place in Golden Gate Park

Peter Plancius, the learned cosmographer of Amsterdam, conceived the idea of a northeast passage in 1594. Accordingly the Amsterdam merchants fitted out a vessel of 100 tons under command of William Barentz, a Dutch Arctic navigator. Barentz made several voyages, 1594-97. On the first voyage he reached latitude 77 degrees or 78 degrees, on the last in which Spitzbergen was discovered. He reached latitude 80 degrees 11 minutes. Barentz died during the return voyage.

In 1602 the merchant associations of London fitted out an expedition under Captain Waymouth, to seek for a passage by the opening mentioned by Davis. This expedition was not successful.

Henry Hudson, by patronage of the Muscovy Company, made his first voyage into the Polar regions in 1607, and discovered the most northern known point of the east coast of Greenland in latitude 73 degrees, and which he named "Hold with Hope," and from whence he sailed to latitude 80 degrees 23 minutes north. On the return voyage he discovered the island of Jan Mayen (Hudson's Tutches). Hudson's third voyage was in the employ of the Dutch East India Company, when he discovered the Hudson river. In 1610 Hudson discovered the strait and bay which bears his name. From 1609 to 1612 Jonas Poole made a number of voyages to the whale fisheries so well established by Hudson, latterly Forturby, Baffin, Joseph and Edge engaged in whale fishing in the Arctic and contributed valuable information regarding Spitzbergen. In 1617 Captain Edge discovered Wyche's land to the eastward of Spitzbergen.

English interest in the western discovery was revived in 1612. Sir Thomas Button left in May, in command of two ships, the *Resolution* and *Discovery*. Captain Gibbons was in charge of an expedition in 1614. Both these expeditions were without results. In 1615 Robert Bylot was placed in charge of the *Discovery*, with William Baffin as pilot and navigator. Baffin was an experienced and scientific seaman, and made many valuable observations. In 1616 Bylot and Baffin again sailed in the discovery. This voyage resulted in the location of Baffin's Bay, Wolstenholm Island, Cape Dudley, Digges, Hakluyt Island, Lancaster Sound, Jones Sound, and the Cary Islands.

The sixteenth and seventeenth centuries were periods of discoveries and daring enterprises in Arctic exploration, owing mainly to the Hudson Bay Company, which was incorporated in 1670. In 1722 John Scroggs was sent from Churchill river to find some traces of the Zachariah Gillan expedition, previously sent out by Prince Rupert. Scroggs entered Sir Thomas Roe's Welcome and returned. His reports, however, confirmed the existence of a northwest passage; while prompted the naval expedition in command of Captain Christopher Middleton with the ships *Discovery* and *Furnace*. Middleton started in July, 1742, and discovered Wager river and Repulse bay. In 1746 Captain W. Moore explored Wager Inlet. 1769-1772 Samuel Hearne descended the Coppermine river to the Polar Sea. In 1789 Alexander Mackenzie discovered the mouth of the Mackenzie river. Captain Vlamnigh, in 1664 advanced round the northern point of Nova Zembla to the winter quarters of Barentz. In 1671 Frederick Martens visited the Spitzbergen group and wrote a masterly work of the physical features and natural history of the country. In 1707 Captains Gillis and Outger Rep discovered Gilles Land 80° N. Captain Scoresby, whaler, is invariably quoted in all accounts of the Arctic regions. In 1806 he had taken his ship *Resolution* as far north as 81° 12' 42".

In 1648 a Russian Cossack, Simon Deshneff equipped a boat expedition in the river Kolyma, and reached the Gulf of Anadyr. Two Russian officers made a successful trip from Archangel to the mouths of the Obi and the Yenisei in 1738. In 1735 Lieutenant T. Tchelyuskiun reached the cape which bears his name 77° 25' N.; several years later about 1743 Tchelyuskiun reached the most northern point of Siberia 77° 41' N.; this journey was accomplished in sledges. Captain Vitus Bering, a Dane, was appointed to command an expedition, by Peter the Great in 1725. Bering with two vessels built in Okhotsk, established the existence of the strait between Asia and America. Bering again sailed in 1740 in a vessel called the *St. Paul* and explored the American side of Bering strait, locating Mt. St. Elias. The Aleutian Islands were also explored, where the vessel was wrecked, and scurvy broke out amongst the crew; Bering died there on December 8, 1741.

Liakhoff, a Russian merchant, discovered the Liakhoff Islands in 1771, which latter was explored by Hedenstrom in 1809. England was again induced to resume Arctic exploration in 1773, when the government commissioned Captain Phipps with two vessels, the *Racehorse* and *Caracas* to make explorations. The expedition sailed from the Nore, June 2, 1773, reached the Seven Islands and discovered Walden Island, the highest latitude attained was 80° 48' N., at about the central part of the Spitzbergen group. Phipps returned to England in September. Five years afterward Captain Cook was instructed to proceed from Kamchatka and search for a northeast or northwest passage, and succeeded on his third voyage in reaching Cape Prince of Wales, the western extremity of America on August 9, 1778. Cook commanded the ships *Resolution* and *Discovery*. Cook named Icy Cape, the farthest point on the American side, and his survey extended to Cape North on the Asiatic.

Sir John Barrow earnestly advocated government support of Arctic exploration and succeeding in having a law passed in 1818, making a reward

of £20,000 for making the northwest passage and of £5000 for reaching 89° N. As a result of these inducements, two expeditions were equipped, one to sail by way of Spitzbergen and the other by Baffins Bay. The Spitzbergen route was taken by the whaling ships *Dorothea* and *Trent* in command of Captain David Buchan and Lieutenant John Franklin, the expedition returned to England having accomplished nothing of importance. The other expedition consisting of the *Isabella* and *Alexander* commanded by Captain John Ross and Lieutenant Edward Parry left England in April, 1818, returning to England the reports of Ross and Parry differed. Parry maintaining that a wide opening to the westward existed through Lancaster Sound. Parry was placed in command of a second voyage in the following year and left England with the *Hecla* and *Griper* passed through Lancaster Sound as he originally contended and entered Barrow Strait, which he named; passing on his starboard the archipelago since known as the Parry Islands; he also found and named Wellington channel and sailed onward to winter quarters on Melville Island, returning to England in 1820. In May of the following year Parry sailed again, this time with the *Fury* and *Hecla* and wintered on Melville Peninsula in 66° 11' N., the second winter was passed at Igoolik in 69° 20' N. *Fury* and *Hecla* strait was named in honor of this voyage.

Parry's friend Franklin was engaged in the meantime in exploring the Coppermine river, which was accomplished to Cape Turnagain. Parry's third voyage was undertaken in 1824 in conjunction with Captain Beechey who was to enter Bering strait; Franklin to make a second voyage to Arctic America, while Parry again entered Lancaster Sound; Parry was unfortunate but Beechey entered Bering strait in the *Blossom*, August, 1826, pushing forward to Point Barrow in 71° 23' 30" N. lat. Dr. Richardson who accompanied the expedition, discovered and named Wollaston Land, between the mouths of the Mackenzie and Coppermine, the dividing strait being called Union and Dolphin strait. All hands returned to England in 1826.

Captain Lutke in charge of a Russian survey expedition was surveying the west coast of Nova Zembla to Cape Nassau; Captain Clavering sailed in the *Griper* in 1823 and conveyed Captain Sabine to the polar regions, where 75° 30' N. was established, on the east coast of Greenland observations were taken on Pendulum Island, and the land laid down from 76° to 72° N. By means of sledge-boats in 1827, Parry reached 82° 45' N. on the northern coast of Spitzbergen. Captain Graah of the Danish navy made an interesting but unsuccessful voyage of exploration on the east coast of Greenland in 1829.

Sir John Ross, formerly of the *Isabella* and *Alexander*, made a second voyage 1829-1833 in the *Victory*, a vessel equipped by Felix Booth. The expedition passed through Regent Inlet to the Gulf of Boothia. James C. Ross, nephew of the Captain, crossed the southern part of Boothia, thence across James Ross strait and discovered the magnetic pole on King William Land, in latitude 70° 5' N. and longitude 90° 46' W.

The successful though ill-fated expedition of Sir John Franklin in search of a Northwest passage left England in May, 1845. With the *Erebus* and *Terror* commanded by Captains Fitzjames and Crozier, Franklin passed through Lancaster Sound, and as was afterwards ascertained, sailed up Wellington Channel to Penny Strait and down Crozier Channel, returning to Beechey Island in winter. Subsequently the vessels made their way to the northwest coast of King William Land, where Franklin died. The survivors under Captain Crozier, started in 1848 for the Great Fish river, and their remains were found along the route to Adelaide peninsula. The expedition had, therefore, ascertained the existence of a sea passage from the Atlantic to the channels south of Victoria and Wollaston Lands, leading to Bering strait. Nothing having been heard of Sir John Franklin and his vessels, some forty expeditions were sent out between the years 1847-57, during which many new discoveries were made. Of those entering the Arctic regions from the east may be mentioned that of Lieutenant E. J. De Haven of the United States navy, in the *Advance*, equipped by Henry Grinnell of New Bedford, Massachusetts, sailing up Wellington Channel, found and named Grinnell Land 1850-51. That of Captain Austin of the *Resolute* (1850-51) who with Lieutenant M'Clintock surveyed the south shores of the Parry Islands. The expedition of Sir E. Belcher, with the ships *Assistance*, *Resolute*, *Pioneer*, *Intrepid* and *North Star* (1852-4) when the commander of the expedition surveyed the Belcher Channel, Lieutenant Sherard Osborn, the north shores of the Parry Islands, and Lieutenants M'Clintock and Meham. Prince Patrick Island; while in 1857-9 Captain M'Clintock in the *Fox*, sailed up Regent Inlet, and established his winter quarters at Port Kennedy in Bellot Strait (discovered in 1851-2 by Captain Kennedy and Lieutenant Bellot of the French navy); whence sledge parties, under the command of Captain Allen Young and Lieutenant Hobson set forth to examine the west coast of north Somerset and Boothia, the south coast of Prince Wales Island, and the shores of King William Land. On the west coast of the last named island was found a paper recording the voyage of the ships *Erebus* and *Terror*, the death of Franklin, and the departure of the crews for the Great Fish river, and traces of their journey were discovered at many points as far north as Montreal Island. Since then remains have been found and relics collected by Dr. Rae, Captain Hall and Lieutenant Schwatka. Meanwhile Dr. Kane, who had accompanied De Haven led another Grinnell expedition in 1853-5 up through Smith Sound to Kane Basin, whence Dr. Hayes explored the coast of Grinnell Land (north of Ellsmere Land, not the Grinnell Land of De Haven), up to latitude 79° 45', and William Morton, the Humboldt glacier and Washington Land. In a second journey made in 1860-61, Dr. Hayes reached Cape Lieber, latitude 81° 35', and made a short excursion into the island ice of Greenland, on the north side of Inglefield Gulf. Captain C. F. Hall, in 1871, carried his vessel

the *Polaris* up to $82^{\circ} 16'$ N. latitude, and wintered in Polaris Bay, north of Petermann Fjord. He was followed in 1875-6 by the Nares expedition, with the ships *Alert* and *Discovery*. The *Alert* wintered off the coast of Grinnell Land, in latitude $82^{\circ} 24'$; the *Discovery* in Discovery Harbor, opposite Polaris Bay. Sledge parties were sent out, one of which, under Commander A. H. Markham, drove northward over the ice toward latitude $83^{\circ} 20' 30''$ N.; a second, under Lieutenant Aldrich, explored the north coast of Grant Land; and a third under Lieutenant Beaumont, reached the farthest coast of Sherard Osborn Fjord.

In 1881-4 Lieutenant A. W. Greely U. S. A., of Newburyport, Mass., led an expedition up Kennedy channel, and explored the interior of Grinnell Land westward to the Greely Fjord (1882); Lieutenant Lockwood and Sergeant Brainerd of this expedition followed the Greenland coast beyond Sherard Osborn Fjord to Lockwood Island $83^{\circ} 24'$ N. Two vessels sent to relieve the expedition failed to reach it, and of the twenty-three men in the party, seventeen died, mainly of starvation, at Cape Sabine. The survivors were rescued in 1884, by a United States expedition under Captain W. S. Schley, later of Spanish-American war fame.

Several exploring vessels have entered the Arctic seas by Bering Strait. Captain Cook reached Icy Cape in 1778, and Captain Besshey in the *Blossom* tried in 1826 to meet Sir John Franklin, who skirted the coast from the Mackenzie, but he did not get farther than Point Barrow.

The greatest expedition by this route was that of the *Investigator* and *Enterprise*, under Captain McClure (Sir Robert John Le Mesurier) a British naval officer, born at Wexford, Ireland, and Captain Collinson (1850-54), which explored the west coast of Wollaston Land and the coasts of Banks Land, while McClure and his crew, like the survivors of Franklin's crews, discovered a northwest passage; they passed over same on the ice and was received by Captain Kellett of the *Resolute* in Melville Sound, and taken home by the *North Star*. E. E. L.



Anton Lund, Hilmer Hansen, Godfred Hansen, Roulf Amundsen, Peter Ristvedt, Gustav Wink, Adolf Lundstrom

On July 8, 1879, Lieutenant Geo. W. De Long sailed from San Francisco in command of the *Jeanette*, fitted out by James Gordon Bennett, for a three years' voyage of exploration in Arctic waters, and placed under the authority of the United States government. De Long proceeded to Cape Serdze Kamen, Siberia; whence he steamed northward until beset by the ice in about $71^{\circ} 35'$ N., 75° W., September 5, 1879. The vessel drifted to the northwest and was crushed in $77^{\circ} 15'$ N., 155° E., June 13, 1881. With fourteen others he reached the mouth of the Lena, Siberia, where the whole party perished of cold and starvation, except two men sent forward to obtain relief. His body and those of his companions were discovered March 23, 1882, by Chief Engineer George W. Melville, who with nine companions had been detached from the main party and had succeeded in reaching Yakutat a small village on the Lena.

About the same time (1878-9) Baron Nils Adolph Erik Nordenskjöld, a Swedish arctic explorer, native of Finland, made the Northeast Passage in the ship *Vega*.

During recent years a large number of expeditions have visited the Arctic regions. In 1886, Robert E. Peary, American arctic explorer, and civil engineer in the United States navy, made a journey of reconnaissance to Greenland. In June, 1891, as chief of the arctic expedition of the Academy of Natural Sciences of Philadelphia, he sailed from New York in the *Kite*, and made his headquarters at McCormick bay on the northwest coast of Greenland. He made sledge excursions along Whale Sound, Inglefield Gulf, and Humboldt Glacier; traversed the island ice from McCormick bay to the northeast angle of Greenland (Independence bay, latitude $81^{\circ} 37'$ N.); and proved the convergence of the eastern and western coasts of northern Greenland, and almost with positiveness the insularity of the mainland. He discovered new lands (Melville Land, Heilprin Land), lying beyond Greenland, and named many glaciers. In September, 1892, he returned. In July, 1893, he sailed again, in the *Falcon*, intending to survey the north-eastern coast of Greenland, and if possible to push on toward the north pole. He was unsuccessful and returned in 1895. In 1899 he crossed Ellesmere Land and connected his survey of the west coast with that of Lieutenant Lockwood. In 1900 he skirted the northern extremity of the archipelago above Greenland, and named Cape Morris Jemup ($83^{\circ} 30'$), the most northern land then known. He also pushed on over the ice-pack to $83^{\circ} 50'$; and again, in 1902, reached latitude $84^{\circ} 17'$ to the north of Grant Land. In the summer of 1905 Peary again sailed northward in the specially built *Roosevelt*, and on April 21, 1906 reached the farthest north $87^{\circ} 6'$, 174 nautical miles from the pole. The expedition also found new land northwest of the northwestern part of Grants Land, and probably an island of the North American archipelago.

Fridtjof Nansen, the Norwegian arctic explorer, entered the ice with the *Fram* near the New Siberia Islands in 1893, drifted during two winters toward the pole, and with Johansen marched over the ice to latitude $86^{\circ} 4'$ N.; while the *Fram* reached latitude $85^{\circ} 57'$ to the north of Spitzbergen, Nansen and Johansen returned by Franz Josef Land.

The Duke of Abruzzi also visited Franz Josef Land in the *Stella Polare*, and one of his party, Captain Cagni advanced in 1900 to $86^{\circ} 34'$ N., the most northern record up to 1906. Among the American explorers in this region are Walter Wellman (1898-99) and Evelyn B. Baldwin (1901-2). These parties filled in certain details of the surveying of the group. Anthony Fiala (1903-5) lost his ship, but discovered some small islands and headlands. In 1906-7 Wellman planned voyages from Spitzbergen to the pole in a specially designed dirigible balloon or air ship, the *America*, but was unable to proceed because of unfavorable weather. Captain Sverdrup (1898-1902) visited Jones Sound, and determined the western side of King Oscar Land, Ellesmere Land, and Grinnell Land, and the connection between North Devon Island and the Grinnell Land immediately to the northwest of it as well as discovered the large islands Ruignes Islands and Alexander Heiberg Island, to the west of Grinnell Land; the explorations of the sledging parties extending to 100° W. longitude and $81^{\circ} 40'$ N. latitude. In 1905 an expedition under the Duke of Orleans surveyed the east coast of Greenland from Cape Bismarck to latitude $78^{\circ} 10'$ N.

We have briefly reviewed the subject of Arctic exploration, to summarize the benefits to mankind, resulting from polar investigation. The complete history of the subject pays worthy tribute to the sterling character and daring enterprise of many others whose names, we regret, for want of space, is not included in this article.

To know and fully appreciate to what extent Norway has participated, and won immortal fame in arctic research, a brief description of the people and country of this little kingdom in northern Europe will assist the reader to know the relation of events and the chain which connects them.

Extending from North Cape ($57^{\circ} 50'$ N. latitude) well within the Arctic Circle ($66^{\circ} 30'$ N. latitude) for a distance of 1060 miles to $71^{\circ} 12'$ N. latitude, is contained the northern, western and southern boundary lines of the kingdom of Norway, in Europe. The total length of the coastline is 3018 miles and the entire country an area of 122,780 square miles. The greatest breadth 280 miles, occurs at the 61st parallel of latitude, diminishing to 70 miles between the 64th and 68th parallels; while from the innermost creek of Ofoten Fjord in the extreme north, the distance to the Swedish frontier is but six miles. The marvelously beautiful coasts of the mainland are washed on the north by the Arctic Ocean, on the northwest and west by the Atlantic Ocean and North Sea, and on the south by the Skager Rak.

West and south of the North Cape begins the long string of sheltering islands, the Skjaergaard, which is one of the most peculiar physical features of Norway. For long distances the mainland does not come into direct contact with the sea; girdled as it is by the belt of islands, holms and skerries. Between this wall of islets and the mainland, extends a connected series of sounds, of the greatest importance for coastal navigation. The country contains thirty rivers with an average length of 87 miles; the Glommen, the largest on the peninsula, is 350 miles long. The rivers for the most part are navigable only for short distances; but contribute largely to the scenic beauty and resultant waterfalls of Norway. The lake area is 2930 square miles, to a great extent the lakes are mere river expansions; the largest lake is Mjosen, 37 miles long, with a surface area of 200 square miles, is 400 feet above sea level, and 1483 feet in depth, the bottom being 1083 feet below the level of the North Sea. The total area of islands amounts to 8460 square miles.

For the most part the country is mountainous and rocky; the loftiest line takes a direction bearing west-southwest, under the name of the Dovre Fjeld, commencing with a plateau only 2000 feet high, but rising farther west into mountainous tracts like those of Snæhætten, whose summit (7666 feet) was long regarded as the highest in Norway; Rundane (6930 feet), the Jotun Fjelde, where the loftiest peak of northern Europe occurs (Galdhøpiggen, 8440 feet), and terminating at its western extremity, north of Sogne Fjord, in the snow field known as Justedalsbrae, where Lodalskaupen reaches the height of 6790 feet.

The coldest parts of Norway, where the mean annual temperature is below 32° Fahr., are the highest regions of the country and the interior of Finmark (Karasjok 26° 4'); on the seashore it is only at Varanger Fjord that it falls below 32°. The highest mean annual temperature (44° 6') is that of Skudesnaes, and the other coastal margin from the mouth of Sogne Fjord to Luidesnaes has a mean annual temperature of 44°. The interior of southern Norway and that of Finmark have the longest winter (200 days with a mean annual temperature of under 32°) and the lowest winter temperature, the mean temperature of the coldest day being under 14°.

Timber is Norway's staple export, forests occupying 24.4 per cent of the total landed area; lumber exports for the year 1902 amounted to \$18,500,000. The total revenue from the fishing industry in 1901 was \$7,500,000, the mineral exports for the year 1904 amounted to \$47,082,448.

Norway has a population of 2,330,000, governed by Prince Charles of Denmark as king of Norway, under the title of Haakon VII, Queen Maud of Norway is the third daughter of King Edward VII. The railway mileage is only 1,607 miles, and the merchant marine in 1904 consisted of 7,203 vessels with a total tonnage of 1,443,904, being the largest carrying fleet in the world after those of England and the United States. The officially recognized religion is the Evangelical Lutheran; and the standard of education is high; the university at Christiania (the capital) having been founded in 1811.

Hence to draw conclusions upon which to base the successful voyage of the *Gjoa*, and to join with King Haakon VII, Queen Maud of Norway and the world in general to acknowledge appreciation of the wonderful achievement of the stalwart sons of Norway; who were the first to navigate from the Atlantic to the Pacific by way of the Northwest Passage.

Roald Amundsen was born in Christiania in 1870, received a public school education, was an apt student of navigation and became a sailor at an early age; was a member of the Belgica antarctic expedition in 1897-99; upon his return was inspired with the ambition to relocate the magnetic pole and discovery of the Northwest Passage. Firm in his beliefs, and persevering in his efforts to organize an expedition, several years were consumed in accumulating funds by private subscription; until finally on June 1, 1903, he sailed from the harbor of Christiania, in the *Gjoa*, a 60-ton wooden vessel; formerly engaged in the coasting trade of Norway. To the experienced navigator the *Gjoa* would probably have been the last vessel to be selected for extensive polar exploration, but circumstances and confidence prevailed and the voyage begun. Heading due west to the north coast of North America and before arriving at King Williams Land the *Gjoa* was driven on the rocks, remaining in this position for 24 hours, when a storm arose and removed the vessel from a position which promised to be the last hope of the vessel and crew; the injury sustained by the vessel in this accident is readily distinguished in the picture. Within two days sailing of their last experience fire broke out in the hold of the *Gjoa* in which was stored 10,000 gallons of petroleum. Arctic terrors were reduced to a minimum compared to the anxious moments of the crew in their efforts to prevent the fire from reaching the oil; success in doing so, however, permitted the vessel to proceed. King Williams Land was reached in the fall, where the vessel and crew remained for 22 months, Captain Amundsen and Lieutenant G. Hansen (second in command of the *Gjoa*) taking daily magnetic observations.

The *Gjoa* left King Williams Land in August, 1905, and drifted through the Northwest Passage arriving at Kings Point near Herschel Island on September 3. Here the *Gjoa* met a number of whaling vessels further progress was prevented and the entire fleet was frozen in. From this point Captain Amundsen went overland to Eagle City, Alaska, and communicated with Norway by telegraph. Returning to the *Gjoa*, the voyage homeward bound was begun in July, 1906. Nome, Alaska, was reached August 31, and from thence to San Francisco on October 19.

Possibly no other expedition entering the polar regions, went with greater handicap than did the vessel and the crew of the *Gjoa*. To a certainty no other expedition accomplished more. Future expeditions will be better able to learn something of the 3,000,000 square miles of the unknown regions contained within the Arctic Circle.

Captain Amundsen is at present in Norway organizing an expedition to reach the North Pole. He has selected the *Fram* for this voyage; the vessel in which Nansen attained his farthest north; the *Fram* being peculiarly constructed to materially lessen the dangers to navigation in Arctic waters. Captain Amundsen will arrive in San Francisco in July, 1910, and will be preceded by the *Fram* via the Cape of Good Hope. Provisions and equipment for a seven years' cruise will be taken aboard at San Francisco, when the vessel and crew will leave on a voyage, the value and importance of which can only be measured by respect of the civilized world for the kingdom of Norway.

FIVE YEARS OF CANAL WORK.

Progress Made Under American Control Since May 4, 1904.
From Canal Record.

III.

Recruiting and Maintaining the Working Force.

From the beginning of American occupation the problem with regard to a working force was not so much to obtain men as to keep them on the work after they had been brought here. This difficulty was experienced as well with white Americans recruited for the skilled trades and administrative positions as with the common labor force. Modern sanitation, systems of housing and feeding employees, and a uniformly high scale of wages have made the force permanent.

The actual number of employees of the New Panama Canal Company on May 4, 1904, was 746, about 700 of whom were laborers at work in Culebra Cut, and others employed as caretakers of the plants and machinery distributed along the line of the Canal between Colon and Panama. Most of this force was retained, and as the work developed it was increased. On November 1, 1904, the total force was about 3,500, of whom 600 were Americans. In spite of the great amount of illness among both white and negro employees during the first years of American occupation, the force grew steadily in numbers. It was not a permanent force, however, as it was made up largely of men who stayed on the Isthmus only a few months. On November 1, 1905, the total force was about 17,000 men, of whom 2,705 were "gold," or skilled employees.

The exact number of men in the Canal force cannot be stated for any given time, as only two force records are available. One of these gives the number of employees actually at work at a given time, and the other gives the number of payments made each month.

A statement giving the number of employees reported in the past five years follows. The actual number in the employ of the Commission is somewhere between the numbers of the two reports. The term "gold" refers to employees in skilled trades, technical, and administrative positions, most of whom are Americans. Silver employees are common laborers and include a few negro artisans.

YEAR	FORCE REPORT.		PAYMENTS MADE.	
	Gold.	Silver.	Gold.	Silver.
*1904.....	600	2,900	**	**
*1905.....	2,705	14,295	2,784	13,685
*1906.....	3,700	13,300	4,823	16,979
†1907.....	4,404	18,923	5,615	24,268
†1908.....	4,587	20,991	5,487	31,000
*1909.....	4,295	20,583	4,962	28,524

*Force on November 1.

**Figures not available.

†Force on June 30.

*Force on January 31.

Not included in the above figures are the employees of the Panama Railroad Company, who on December 31, 1908, numbered 5,342, and the employees of the Commissary who numbered 749, a total of 6,091.

By nationalities, the force at work on January 31, 1909, included 4,295 Americans; 4,913 Europeans, and 15,670 West Indian negroes. The skilled labor, technical and administrative forces, are recruited in the United States, and although the number of men who left the service each year up to 1908 was as great as the number actually at work, the supply has always been adequate.

The supply of common labor has not always been sufficient to meet the demand, and in the first three years was quite inadequate. In 1905 labor agents were sent out to various foreign countries.

The following table shows the number of laborers recruited up to May 1, 1909, and the source of supply:

EUROPEAN LABORERS						
Place of Origin.	1905	1906	1907	1908	1909	Total.
Spain.....		1,204	5,291	1,750	.....	8,245
Italy.....		909	1,032	.....	.....	1,941
Greece.....			1,101	.....	.....	1,101
France.....		19	.....	.....	.....	19
Armenia.....		14	.....	.....	.....	14
*Cuba.....		515	.....	.....	.....	515
Total.....		2,661	7,424	1,750	.....	11,835
WEST INDIAN LABORERS						
Barbados.....		7,050	3,242	2,592	1,291	14,175
Guadeloupe.....			2,039	.....	.....	2,039
Martinique.....		565	2,224	.....	.....	2,789
Jamaica.....	100	.....	.....	.....	.....	100
Trinidad.....		1,079	.....	.....	.....	1,079
Curacao.....		23	23
St. Kitts.....		1,346	1,346
†Colombia.....	442	160	602

(Continued on page 15)

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ADVERTISING RATES ON APPLICATION
Address All Communications to the Pacific Merchant Marine

Bernard Baker, an eminent authority of Baltimore, Md., has furnished President Taft, by request, with some startling figures regarding freight rates in the Panama railroad. Mr. Baker gives due regard for the rights and privileges of corporations to protect their interests, but qualifies the statement that it should not be done at the expense of the development of the United States. As a remedy for existing conditions, Mr. Baker suggests relief through the Act of March 3, 1891, by which the postmaster-general is authorized to advertise for steamers to carry the United States mails.

The suggestion offered has more merit than appears on the surface, but approaches government ownership by stepping almost to the danger line, to which Mr. Baker evidently is strongly opposed. At the same time many of the representatives in Congress are over diligent in trying to impress the public with their sincerity in behalf of the merchant marine by advocating a government line of steamers on the Pacific. The absurdity of this policy is best learned from the figures furnished by Mr. Baker, which show conclusively the present unjust discrimination of the government-owned lines—the Panama Steamship Company and the Panama Railroad Company. Freight rates charged by these routes reveal the true conditions of government ownership:

Dry good, New York to Central America, per ton, \$21.40
Dry goods, Europe to Central America, per ton, 20.40

If dry goods are shipped over the Panama railroad from New York to Panama, the rate from Colon to Panama is \$5.72 per ton; if the same class of goods comes from Europe, the rate is \$4.76 per ton. Machinery is shipped from New York to Guayaquil for \$12.40 per ton; European machinery is carried for \$11.88.

Machinery in transit by way of the Panama railroad and the Pacific Mail Steamship Company from the east to the west coast of the United States is charged \$36 per

ton. European shipments to the Pacific Coast of the United States is carried for \$18.82. The Panama railroad charges from Colon to Panama, if from New York, \$8.10 per ton; if from Europe, \$4.59. Pacific Mail Steamship Company, from Panama to San Francisco, if from New York, \$18 a ton; if from Europe, \$7.64 a ton.

Mr. Baker sympathizes with San Francisco as being the greatest sufferer from these unjust discriminations, which is true to a great extent. Seattle, Tacoma, Portland, Eureka, Los Angeles and San Diego are all important shipping points on the Pacific; collectively with San Francisco they form a large volume of the commerce of the United States, and it is safe to say that under equal conditions with other parts of the United States would increase their commerce to a large extent. But railroad discrimination is not altogether to blame for existing conditions. Each individual city mentioned is preoccupied with its own interests. No concerted action has ever been taken to combine these interests by which to obtain a just share of the world's patronage, and the more closely we examine this statement the more clearly and forcibly will its effects present themselves to our notice. Every great movement leads to some modifications of existing conditions. What if one city on the Pacific Coast is favored more than another? The simmering process of waiting for results is obsolete. Unanimity of action is the only method by which we may hope to develop the commercial prosperity of the Pacific Coast.

CHILEAN-AMERICAN TRADE.

An extract from El Mercurio, the leading daily of Valparaiso, with a translation thereof, is herewith transmitted. The quicker communication between this part of Chile and the United States, of which the article treats, meets with general approval and will be of great benefit to the business interests of both countries.

The article expresses well the real attitude of the Chileans toward the United States. They wish to get in closer touch with and to know more about the American people and their methods. This should be encouraged by American interests, and the United States should join in the improvement of the service. According to the present arrangement, there is a fast steamer each fortnight only, but in order to get the greatest good out of the service there should be weekly sailings.

Now is the time to act in the matter for the tide is turning strongly toward American interests, and everything possible should be done to encourage it. Chile takes \$100,000,000 worth of manufactured products yearly, and American interests could have 40 to 50 per cent thereof, instead of about ten, as at present.

The following is a translation of that portion of the article from El Mercurio which refers to the United States:

On March 10 the steamer Orita, which has just arrived on its return trip from Europe, continued its voyage to the port of Callao, Peru. This fact, which passed unnoticed at the time on account of the national elections, is one of great importance to our country's progress. The Orita begins the new service which brings us nearer to the United States, putting us within eighteen days of New York. This combination is of prime importance to Chile, as it brings us nearer to the colossal focal of civilization and commerce—the United States. We shall now be able to effect business in a much shorter time and the voyage will be much cheaper and much more agreeable for the traveler, and will not require thirty-five days as before. A merchant may now spend a short vacation in going to the United States to transact business and to acquaint himself with the country, which is an emporium of wealth and civilization. Being brought into closer contact with these great centers of modern life is certainly of great advantage to a country like ours, situated, as it is, far from the world movement.

NOTES OF PACIFIC COAST PORTS

Port of San Francisco.

California capitalists will bid for Alaskan trade.—Through the efforts of the California Promotion Committee sufficient interest has been aroused among the merchants of California, who will benefit from the restoration of the Alaskan trade, and representatives will be sent to Alaska in the interest of this movement.

It is proposed to charter several available steamships for the run between San Francisco and Alaskan ports, and when this service is inaugurated California merchants will be enabled to compete with Puget Sound merchants.

Products Move via Sea Route.—A very much larger proportion than usual of California products, particularly canned and dried fruits, wine, hops and similar commodities, are moving and will move from San Francisco to Atlantic seaboard markets this year via sea route than formerly. The American-Hawaiian Steamship Company is actively soliciting business and is getting a big share of it. This is somewhat due to antagonism created between the railroads and shippers over the advance in eastbound transcontinental freight rates which took effect last January.

Many shippers here and buyers at Atlantic seaboard markets are shipping via American-Hawaiian route where local rail freight charges at either end do not interfere, and the American-Hawaiian service is much more actively soliciting business than heretofore. Rates via American-Hawaiian steamship line are not subject to Interstate Commerce Commission control.—S. F. Fruit Grower.

Steamer City of Pekin to be Used for Detention Shed.—Following the decision of the immigration authorities in refusing to permit detained Oriental immigrants to be held in the detention sheds of the Pacific Mail Steamship Company, that company has decided to use the old steamer City of Pekin for housing the immigrants.

A station was constructed for the detention of immigrants on Angel island, but the steamship companies are opposed to using it, and it is doubtful whether it will be opened before the completion of the Panama Canal. The City of Pekin has been lying in the stream since January 12, 1907. She has a capacity of 3,669 tons, but owing to her age she is not desired for active use at present.

Damages Awarded to Wrecked Barge Chinook.—Judge De Haven of the United States District Court has placed the responsibility on the Simpson Lumber Company's tug Columbia for the grounding of the barge Chinook on the bar at Coos Bay. The tug was attempting to tow the barge into the harbor at the time. In a written decision Judge De Haven stated that the wire pennant used in connection with the hawser in the towing was weak, worn and rusted and unfit for use. However, as the lumber company was ignorant of its condition, the damages must be limited under the law to the value of the tug Columbia. The court instructed the United States Commissioner to assess the damages and the value of the tug.

Excellent Time by the Tehautepec Route.—In the arrival at San Francisco of the American-Hawaiian steamer Mexican, on August 7, a new record was established for quick transportation of freight from New York to San Francisco. The shipment consisted of 81 tons of flat cars and carts for the Mare Island naval station, and it left New York on July 12, arriving at its destination in just three weeks.

Appeal from Fifteen-ton Decision.—Following the notification of Captain Bermingham, head of the government steamship inspection service, that all launches measuring a fraction over fifteen tons must be manned by licensed officers, the launch men have appealed to Washington and pending a decision the enforcement of the law will be suspended. By enforcing the law, which compels the employment of a licensed master and a licensed engineer, would compel several launch companies to lay up all large boats. At present launches a fraction over fifteen tons can be operated by an engineer with a gasoline launch license and a deckhand. The payroll of a gasoline launch of 15 tons and under is less than \$160 a month. Under the new law the payroll of a launch that measures 15.1 tons would be at least \$310 a month. The launch owners assert that the interpretation of the law by which fractions of the first ton over fifteen were not considered was by the federal inspectors and that a change of their ruling after the boats have been built inflicted a hardship.

Barge Fresno Brings Valuable Cargo.—The Standard Oil steamer Rosecrans arrived August 15 from Douglas island with the barge Fresno in tow. The Fresno, which was stationed at Tyee as a supply ship for the whaling fleet, carried a cargo of 3,000 barrels of whale oil, 220 tons of whalebone and 300 tons of guano, consigned to Barneson, Hibberd & Co. This cargo was the most valuable of its kind ever brought into port.

Shipping Firm Establishes New Service.—Frank Waterhouse & Co. have established a branch office in Vancouver, B. C., with the firm of Greer, Coyle & Co., and will shortly inaugurate a passenger and freight service between Vancouver, New Zealand and Australia. This service at the present time does not include Vancouver, going direct from San Francisco to the islands. A monthly service will be maintained to Vancouver by three fast modern steamers. These steamers will likely be a large factor in the fall grain traffic from Vancouver.

Ship Astral to Sail for New York.—Bates & Chesebrough will dispatch the Clipper Line ship Astral to New York on September 1, with a full cargo of general freight, which consists of 2,000 tons of scrap iron and shipments of lead, salmon canned goods, wine, asphalt and miscellaneous merchandise.

New Freight Service in Operation.—The Mattole Lumber Company of Humboldt county has inaugurated a new freight service between the Humboldt coast and San Francisco. Two steamers have been chartered, the Grace Dollar and South Coast, and they will be operated on a weekly schedule between San Francisco and Mattole.

Swayne and Hoyt are the San Francisco agents for the new line, and the officials of the Mattole Lumber Company will have charge at the other terminal. According to what is known of the plans of the Mattole Lumber Company at the local shipping offices, it is believed that the steamer Gualala, which has made many trips to this port and which was running to Mattole for several weeks, will be retained and operated in connection with the Grace Dollar and the South Coast, making even better than a weekly service. The new steamers will handle much freight from the Mattole valley and will offer first-class accommodations for the shipping of the Mattole apple crop, which is a valuable asset of that section each year, which has been handicapped by lack of transportation facilities. There will also be the lumber and tanbark of the Mattole Lumber Company to be handled.

Union Oil Company May Buy More Carriers.—Pending the consummation of the marketing agreement between the Union Oil Company and independent operators, negotiations are in progress for the purchase of several steamers. There are many steamers on the market suitable for the oil company, but it is not known which will be selected.

New Whaling Station to be Established.—Preliminary arrangements are being made for the establishment of a whaling station on the extreme southern end of Moresby island, near Houston, Stewart channel. Surveys have been made for the building of wharves, buildings and water plant, and just as soon as the machinery is ordered the installation will commence. As whales are quite plentiful about Queen Charlotte island the new station should fare well.

Steamer Pleiades Fined.—The customs inspectors fined the steamer *Pleiades* for discharging her cargo in advance of entering and producing her manifest to the collector of the port.

Steamer Winnebago Total Loss.—Nothing of the Winnebago remains above water but her funnel, and therefore nothing can be saved. The cargo of lumber, amounting to 1,000,000 feet, was sold to farmers at Point Arena for \$100.

Petition filed for the remission of the Tax on the Simla.—Judge de Haven, of the United States District Court, will hear, on August 18th, the petition of G. W. Gore, as acting master of the British ship *Simla*, for a remittance of \$2,132.10 alien tonnage tax and light money which was levied on the *Simla* by the customs authorities. The *Simla* was burned at Acapulco September 9, 1908, and her hull was purchased by J. H. Rinder, an American citizen, from Lloyds for the Merchants' Tugboat Company for \$3,500. Her master had sent the ship's papers to Lloyds at London through the British Consul at Acapulco, and they had not been returned when the tug *Hercules* towed the hulk to San Francisco. Owing to the absence of her papers she was classed as an "undocumented vessel" by the San Francisco customs authorities, and a tax of \$1 per ton assessed under that classification. This tax, together with the "light money," makes up the total which it is asked to be remitted.

Seattle.

Steamboat Venus Sold.—Captain T. H. McMillan and C. C. Griggs, owners of the new steamboat *Venus*, have sold that boat to C. D. Hillman. This boat, which is one of the speediest small craft on the Sound, has a carrying capacity of 300 and 400 passengers. The consideration involved was \$25,000. The *Venus* will operate on a regular schedule: Four days to Birmingham, two days to Olympia and one day to Bremerton.

Location of Quartermaster Harbor Drydock to be Changed.—The large floating drydock, stationed at Quartermaster Harbor, which is owned by J. T. Hefferman, will shortly be moved to the south end of the east waterway of Elliott Bay and permanently moored. The dock will go out of commission at its present location about the end of this month and will remain out of commission for two weeks, pending placing it in its permanent berth.

Steorage Passenger Rate War Likely on Oriental Run.—With the announcement of a cut of \$5.50 from the prevailing rate for steerage passage from Puget Sound to the Orient by the Osaka Shosen Kaisha, comes the first intimation of a threatened rate war.

The Nippon Yusen Kaisha, being also a subsidized Japanese company, will be the strongest opponent of the Osaka Shosen Kaisha. The Hill liner *Minnesota*, the Canadian Pacific steamers from British Columbia, the

Blue Funnel liners and the Andrew Weir steamers will be affected by the cut. All the steamship companies operating on this run, with the exception of the Osaka Shosen Kaisha, are members of the Trans-Pacific Passenger Association, and maintain the rates dictated by that organization, which, in this particular case, was \$43. The new steamer *Tacoma Maru*, which is operated by the Osaka Shosen Kaisha, has accommodations for 200 steerage passengers.

Salmon Exports From Puget Sound.—Collector Harper's report shows that 7,900,000 pounds of canned salmon were shipped by water from Puget Sound during the fiscal year ending June 30th. The heaviest shipments were to England, aggregating 4,000,000 pounds, or more than half the total shipments from this customs district. Australia was the second best customer, taking 1,237,000 pounds during the year. The Philippine islands were third, taking 884,352 pounds.

Immigration Station Likely to be Established at Seattle.—Following the appointment of an immigrant commissioner for Seattle, several commercial organizations are seeking to secure an appropriation of \$250,000 to establish an immigration station at Seattle.

Traffic of Seattle for July.—For July the arrivals by steamer in the Port of Seattle, as shown by the monthly report of Harbormaster Spaulding, were 185,658, and the departures 164,442. The harbormaster reports that during July 137 steamers and four sailing ships, with a total tonnage of 212,060 tons, arrived from deep sea ports. The departures of deep sea vessels were 142 steamers and two sailing vessels, with a total tonnage of 213,931 tons. Last year, in July, the inward vessels numbered 97, tonnage, 159,614 tons, and departing vessels were 79, registering 150,364 tons. Merchandise received last month from Pacific Coast, Alaskan, and local ports was valued at \$2,408,987, an increase of over \$2,323,935 for the same period in 1908. Freight shipped to coastwise ports last month totaled \$1,637,060, a gain over last year, which showed \$1,142,097 for July. Imports of foreign merchandise last month register a gain, with the figures being \$2,954,380, as against \$1,989,450 for July of last year. Imports from the Orient were \$2,119,665. The total exports to foreign ports last month were \$627,251, as against \$638,583 in June and \$964,842 in July.

Lloyds Appoint Seattle Agent.—After every prominent shipping man and firm had made application for the position, notification of the appointment of Balfour, Guthrie & Co. has been received from London. The jurisdiction of Lloyd's agent at Seattle extends from Skagit Head, south end of Whidby island, to Alki Point. The appointment dates from July 28. The agents here will look after Lloyd's business in this port. This work consists largely of reporting casualties, collecting data for Lloyd's register and making other reports for the great shipping organization. Lloyds keeps a careful report of all marine mishaps and other nautical data, having agents and representatives over the entire world. In addition, detailed information of practically everything afloat is compiled by Lloyds.

Steamer on Port Orchard Route Reported for Overloading.—Customs inspectors have filed charges of overloading against the steamer *H. B. Kennedy* of the Port Orchard route. It is alleged that she carried 931 passengers, whereas her license only calls for 900. The owners of the boat claim that the passengers climbed over the rail at Bremerton and they were unable to count them. If the owners' claim is not substantiated a fine of \$500 will likely be imposed.

Codfishing Fleet Arrive Early.—The Bering Sea cod-fishing schooner Harold Blekum, Maid of Orleans and Fortuna, with a total of 350,000 cod, are back in port three weeks to a month earlier than the Bering Sea cod-fishing vessels usually return.

Service to Skagway to be Increased.—The unusual amount of passenger business on the Skagway run as the result of the large tourist travel through Southeastern Alaska this summer is shown by the announcement by the Alaska Steamship Company that hereafter, when necessary to take care of the passenger traffic from Skagway south, the vessels on the southwestern run will call at Skagway, the White Pass terminus, on the way from Cordova. The cause of the new order is the recent arrival at Skagway of a good-sized party of travelers, some from the interior and others from the vicinity, who were unable to get accommodations on the vessels of other companies, owing to tourists having taken practically all the room.

None of the vessels for Skagway this summer has gone out with any vacant rooms, and in most cases the list has consisted largely of round trippers, leaving only a handful of vacant rooms for the return. Recently the Jefferson transferred some passengers to the steamship City of Seattle, which in turn handed them to the Canadian Pacific to bring south. The situation has given rise to rumors regarding a congestion of people in Skagway, unable to get out on the boats. This is emphatically denied by the steamship companies, but to prevent any such contingency arising the steamships Ohio, Northwestern and other passenger vessels of the Alaska Steamship Company on the Cordova run will hereafter keep in touch with the situation at Skagway and, if necessary, run over from Juneau on the trip south and pick up parties of belated travelers.

Commerce of Puget Sound for July.—The report of United States Shipping Commissioner James Knox for the district of Puget Sound for July was issued and shows a substantial gain over the corresponding month of last year and gives evidence of improvement in local shipping conditions. The total number of men shipped and reshipped during the month amounted to 4,197, while the record for July, 1908, was 3,702, showing a gain of 495 for the month just closed. The gain over June of this year is 281. A summary of the report segregated as between steam and sail vessels, and also as between foreign and domestic ports, is as follows, seamen reshipped being those who sign again on the same vessel from which they were last discharged; half-rate ports those in Canada and Mexico, and full-rate ports all other foreign ports:

Shipments and Reshipments—Foreign ports—Shipped, full rate ports: Steam, none; sail, 10. **Half rate ports:** Steam, none; sail, 19. **Reshipped:** Steam, none; sail, none.

Domestic ports—Shipped: Steam, 711; sail, none. **Reshipped:** Steam, 1,283; sail, none. **Total shipped and reshipped,** 2,023.

Discharges—Foreign ports—Full rate ports: Steam, none; sail, 8. **Half rate ports:** Steam, none; sail, none.

Domestic ports—Steam, 2,123; sail, 43. **Total discharged,** 2,174.

Total shipped, reshipped and discharged, 4,197.

Total for June, 1909, 3,916.

Gain over June, 1909, 281.

Total for July, 1908, 3,702.

Gain over July, 1908, 495.

Portland.

Gray & Holt Lease Couch-street Wharf.—Gray & Holt Steamship Company of San Francisco, operating the steamers Nome City and Alliance on the San Francisco-Portland run, has leased both decks of the Couch-street dock, and extensive repairs will shortly be made to the structure. The upper deck of the dock will be extended out to a line even with the lower deck, thus adding about 12,000 square feet of floor space to the upper deck and providing a secure landing place for steamers at any stage of the tide.

Spokane, Portland and Seattle Railroad Completes Traffic Arrangement With the North Pacific Steamship Company.—The North Pacific Steamship Company, operating the steamers George W. Elder and Roanoke in the freight trade between California and Oregon ports, has entered into a traffic agreement with the Spokane, Portland and Seattle railroad, and will in future be able to tranship freight to and from California in this city to interior Washington points via the S. P. & S. Traffic sheets covering that service are now in the hands of the Interstate Commerce Commission for approval. By this agreement for exchange of freight and passenger traffic not only do the Hill lines make new encroachments on Harriman's California territory, but Portland for the first time becomes a transshipping point for California traffic destined to or from points on the Hill lines. Similar arrangement is now in force between the Hill roads at Seattle and the Pacific Coast Steamship Company.

Name of Steamer Jessie Harkins Changed.—The owners of the little steamer Jessie Harkins, A. D. Chase and H. Young, have secured the consent of the customs authorities to change the name of the steamer Jessie Harkins to that of Butterfly. Up until the present time there were two steamers known as Jessie Harkins, owned in Portland. The owners of the Butterfly purchased her as the original Jessie Harkins, which had been out of commission for six months, fitted her with a cabin and installed machinery, intending to place her in the passenger business to nearby points. Captain O. N. Horsford, from whom the Jessie Harkins was purchased, after placing the boat out of commission, built another one and christened her the Jessie Harkins. The owners of the old Jessie Harkins intended to rechristen her the Butterfly, but the customs officers were obdurate until the present time.

Ship Brodick Castle Given Up.—Fully 100 days overdue from Portland to Ipswich with a cargo of barley, the British ship Brodick Castle, Captain Taylor, has been given up for lost by shipping men. The vessel sailed from Astoria December 5. Captain Taylor carried a crew of 26 men and was accompanied by his wife. The vessel was an old one, having been built in 1875 at Glasgow. She has always been known as a smart ship. In the opinion of shipmasters now in port the Brodick Castle turned turtle. She had a full cargo of barley, which is light freight, and in case of bad weather she would be difficult to handle. The Brodick Castle came to Portland from Newcastle, B. S. W., with a cargo of coal and for months laid in the stream with the fuel on board.

Norwegian Steamer Selja Taken off Portland-Orient Run.—The Portland and Asiatic Steamship Company has decided to take the Norwegian freighter Selja off the trans-Pacific trade indefinitely, for the reason that on her last outward voyage from Portland only one-third of a cargo was taken. The Selja will in the future operate as a collier between Hongkong and Nagasaki or Moji. Inbound vessels of the Portland & Asiatic line have generally been loaded to their capacity, but there has always

been difficulty in getting a full outward cargo. At present the outbound trade is at a very low ebb. The price of flour is so high there is little market for it in the Orient. But the Selja took an especially light cargo on its outward trip in July, and in consequence officials of the line have made their decision to withdraw it for a time. In the meantime the Norwegian steamship Rygja, of the same line, will sail from Hongkong for Portland about August 15. It should reach here the middle of September. She will undoubtedly be able to handle all outward cargo that was to have gone on the Selja.

Steamer Claremont Sued for Damages.—The Portland Gas Company has sued the steamer Claremont of San Francisco for breaking a gas main running across the Willamette river. At the time of the accident the Claremont ran into a barge which was lying at the end of the main, the barge in turn striking the main and allowing it to fill with water. The amount sued for is \$1,000.

Eureka.

The Traffic of Eureka for July.—During the month of July 181 vessels, including steamers, sailing vessels and the two power boats on regular runs from this port, had crossed Humboldt bar; 44 of these vessels carried U. S. mail. Of the vessels crossing the bar during the month 93 were incoming and 88 outgoing. This makes an average of three steamers crossing the bar each day inward bound and a fraction smaller average number of departures for each day in the month. The average daily number of vessels incoming and outgoing is slightly under six, while the greatest average for any month heretofore this year was a little over five.

Dredging Contract Let by the Pacific Lumber Company.—The American Dredging Company has secured the contract for dredging operations in South bay and near Field's landing, and extending a mile and a half to the entrance of Humboldt Bay. The present channel, which is but sixty feet in width and very shallow at low water, will be widened to one hundred feet and deepened considerably. Work will commence about September first and extend well into the winter months. The Pacific Lumber Company is now making many improvements to the docks and quays at Field's landing.

Fast Steamer Service to be Established Between Eureka and San Francisco.—F. Crosby of San Francisco, who has been here for some time engaged in promotion work for the inauguration of a fast steamship service between this city and San Francisco, states that he has made good progress. The subscriptions of stock in the new venture have been so encouraging that the indications now are that the line will be in operation by November 1. The plan is to put on a steamer of about 1500 tons, capable of making the voyage up or down the coast in about 16 hours and with this to cater to first-class passenger traffic and carrying of light fast freight. The average time between San Francisco and Eureka now is about 20 hours. A vessel capable of making the voyage in 16 hours is not now available on this coast, and one will have either to be built here or secured on the Atlantic coast. Of course if a vessel has to be built for the traffic it will not be available by November 1, and in that event some vessel will have to be secured ad interim. The main feature of the new steamer will be its speed, and it is proposed to have the vessel known as the Eureka flyer. First-class passenger traffic will be catered to and the vessel will have accommodations for a large number of passengers. Dockage and warehouse facilities will be arranged for in this city as soon as is possible, while an agency here and in San Francisco will be operated.

Victoria, B. C.

Extensive Repairs on the Steamer Puritan.—In attempting to free herself from the ice near Cape Nome, after being imprisoned for eleven days, the steamer Puritan broke all the blades of her propeller. The open roadstead of Cape Nome was made with the aid of the broken propeller and square sails, and a seven-ton propeller was shipped from a scow. In order to ship the screw it was necessary to tilt the stem by unloading two-thirds of her cargo from the after hold. In so doing the vessel was badly strained and she is now at Esquimalt for repairs.

Canada Will Control Esquimalt Navy Yard.—The Canadian Government will, at the end of August, take over the control of the Esquimalt navy yard from the Imperial Government. This is one of the developments growing out of the pronounced policy of Canada in building a Canadian navy.

Schooner Umbrina Sold.—Captain McDonald, an old South Sea trader, has purchased the schooner Umbrina and will engage her in pearl shelling and trading sandalwood in the New Hebrides.

New Schedule for Weir Fleet.—A new schedule for the Weir fleet in the Oriental service from the Sound, covering a period of 12 months, has just been issued. It includes the dates of arrival at and departure from Tacoma, Seattle, Vancouver and Victoria, on Puget Sound, and Yokohama, Kobe, Moji, Manila and Hongkong, in the Orient. The vessels now comprising the fleet are the Kumeric, Aymeric, Suveric and Oceano. Before the schedule expires, however, substitutions of other steamers of the fleet will likely be made for certain vessels mentioned in the present time card. Liners arriving from the Orient will hereafter follow the route of the Oceano, touching first Victoria, then Vancouver and Tacoma. Leaving the Sound they will depart first from Tacoma for Seattle, thence to Vancouver and last at Victoria. All of the inward freight not discharged at Vancouver and Victoria will be brought to this port, as was done with the steamer Oceano, which is now discharging. The next steamer of the fleet is due at Victoria from the Orient August 26; at Vancouver, August 27, and at Tacoma, August 30. This will be the Kumeric, which is scheduled to leave Yokohama with a general cargo for the Sound. The Aymeric will follow the Kumeric, leaving Yokohama September 8 for the Sound. Theodore Wild, chief clerk in the Tacoma offices of the fleet's agents, is acting as purser on the Aymeric on her present voyage. She is reported steaming from Nagasaki to Manila July 29. The steamer Oceano, which is now at this port discharging freight from the Orient, is expected to leave August 18 for Seattle. She will remain there six days and then shift to Vancouver, from which port she steams to the Orient August 27.

Honolulu.

Dredger South Bay Will Soon Begin Operations.—The Standard American Dredging Company's dredger South Bay, which was, before being altered, in the coastwise lumber trade, has arrived in port and will soon begin operations on the bar at the mouth of Pearl Harbor channel. The South Bay is an oil burner and is 160 feet long with a 36-foot beam. She is equipped with 400 h. p. engines. The dredging plant consists of compound engines directly connected to a centrifugal pump with a 24-inch discharge. There are two drag suction pipes designed to work 36 feet below low tide, having a capacity of between 3,500 and 4,000 cubic yards of material a day. The dredged material is pumped into a huge hopper on the forward deck with a capacity of 400

yards. The bottom is arranged to open so that the material can be dropped anywhere the dredging people desire to locate it.

Steamer Niihau a Total Loss.—The interisland steamer Niihau is ashore on the coast off the island of Molokai, and will probably be a total loss. The Niihau, which was built at Fairhaven, Cal., in 1897, is 341 gross tons register and 148 feet in length.

Tacoma.

British Bark Zinita Long Overdue.—Grave fears are expressed in shipping circles of this country and Europe for the safety of the British bark Zinita, Captain Spivey, which is now long overdue from Falmouth for Tacoma. The Zinita attracted much attention when she was attempting to leave Europe for the Pacific by a series of mishaps which compelled her to put into different ports before she finally left Falmouth. She is now out 198 days from that port and is on the overdue list and posted for reinsurance.

The Zinita is 270 days out from Newcastle-on-Tyne, from which port she originally sailed for the Sound. On November 17 she reported at Deal with her decks swept and minus her sails. She sailed again on December 2, and seven days later put into Falmouth leaking at her sternpost on the starboard side. She sailed last on January 24 for the Sound and has been spoken once on the voyage. On February 10 she was sighted in 14 north and 26 west, but since that time no tidings have been received from her. Some shippers fear that in her last experience with the gales before putting into Falmouth she was more seriously damaged than was ascertained at the time and that she has since met with other gales which have sent her to the bottom.

The Commerce of Tacoma for July.—For July Tacoma's ocean commerce was valued at \$2,326,748, according to figures shown by the report of the harbor master. The report shows a comfortable increase in exports from Tacoma to foreign ports, as compared with the report for June. Coastwise shipments were not quite as large as the previous month, but are increasing rapidly during the present month. The month's lumber shipments amounted to 4,412,000 feet shipped coastwise, and 4,446,852 feet shipped to foreign ports, a total of 8,848,852 feet shipped during the month. The flour shipments coastwise consisted of 14,986 barrels, valued at \$74,625, while 18,740 barrels were shipped to foreign ports, the value being \$89,748.

San Diego.

Government Coaling Station to be Abandoned.—Instead of improving the government coaling depot at San Diego, as the commercial bodies of that city desired the government to do, it will be discontinued indefinitely. The depot at California City Point, in San Francisco Bay, will be developed to the highest point of efficiency in order to enable it to handle the entire Pacific fleet if necessary. The California City station, which at the present has a capacity of 30,000 tons of coal, will have its facilities increased so as to enable it to handle 100,000 tons. One reason for abandoning San Diego is that sufficient funds were not available for developing both that point and California City Point.

San Pedro.

Schooner Ensign to Be Floated.—An effort is to be made to float the big four-masted schooner Ensign, which went ashore on the beach at Naples the night of January 15 last. She was in ballast at the time, and was carried so high by the waves that it was thought impossible to float her. Captain K. Kelleridge of San Francisco will have charge of the work.

Long Beach.

Incorporation Papers for New Steamship Company.—Incorporation papers have been drawn up for the company which proposes to build a steel steamship at Long Beach, in order to facilitate the signing of contracts for materials as soon as the remaining \$15,000 needed has been secured. The company will be known as the California and North Pacific Steamship Company. The following San Francisco men are among the incorporators: R. H. Swayne, J. G. Hoyt, Philip S. Teller and C. L. Tilden. The Long Beach men named as incorporators are Stephen Townsend, J. F. Craig and George H. Bixby.

NOTES.

Collectors of Customs Instructed to Watch Imports From Philippines.—Under the Philippine tariff law all articles from the islands will be admitted free, with the exception of silk. Collectors of customs have been instructed, however, to report to the Treasury Department all entries of sugar, tobacco, and cigars, as under the tariff laws importations of these articles are limited. The law limits the free entry into this country from the Philippines of sugar to 300,000 tons a year, filler tobacco to 1,000,000 pounds a year, wrapper tobacco to 300,000 pounds a year, cigars to 150,000,000 a year.

Ship May Change Ports.—The Department of Commerce and Labor has issued the following: "Merchant vessels running on regular schedules and carrying passengers and cargoes may, when cleared for the port of Colon and unable to obtain a berth at the piers of that port for the prompt discharge of their cargoes, proceed to the port of Cristobal, provided notice of this fact is given in due time to the Panama authorities, and provided the captain of the vessel immediately delivers the ship's papers to the respective port authorities, as the case may be. Merchant vessels dispatched for the port of Cristobal or Balboa (La Boca) when dispatched from their sailing port by American officials and which carry cargoes or goods of any kind destined to the republic of Panama, must furnish to the port authorities at Colon or Panama, as the case may be, a copy of the manifest or soborodo issued by the officers of the American Government who dispatched the vessel. This is for the purpose of giving the authorities of the Panama ports an opportunity to take a note of all cargo destined or consigned to Colon and Panama and to prevent smuggling that might be attempted or be carried on."

United States Registry for Foreign Built Vessels.—To provide American registry for the bark Catalina, a bill which has been introduced into Congress reads as follows: "That the commissioner of navigation is hereby authorized and directed to cause the foreign built bark Catalina, wrecked in Florida and repaired at Jacksonville and purchased and wholly owned by an American citizen, to be registered as a vessel of the United States."

English Courts Give Important Marine Decision.—English courts have decided against the owners of the British ship Lyderhorn in a case involving the determination of when a ship is ready for loading. The court holds that a vessel is not ready for loading until she has taken stiffening. If the vessel uses as stiffening outward cargo then the vessel does not comply with the terms of the charter party concerning her readiness for the charters. In the case at issue the Lyderhorn's owners sued Duncan, Fox & Co. for damages for loss of freight and detention of the ship, alleging a breach of a charter party dated November 15, 1907. By the charter party the Lyderhorn was to proceed to Iquique and there load a cargo of

nitrate to be supplied by the defendants, who also undertook to supply a stiffening of nitrates to the ship. The vessel, which arrived at Iquique with coal, was to be ready to load nitrate January 31, 1908. On January 27 the captain gave notice to defendants that he was ready to receive 700 tons of nitrate for stiffening. Defendants refused to supply this, contending that at such a date it was impossible that the ship could be ready to load her cargo four days later, as provided by the charter party. They neither supplied stiffening nor cargo, and on January 31 canceled the charter on the ground that the ship was not ready to receive her cargo.

Commerce of Argentine.—The shipping business of the Argentine Republic for the year 1908 showed arrivals of vessels numbering 2,232, representing a total tonnage of 4,488,741 tons, which, as compared with 1907, is an increase in the steam tonnage of 998,978 tons, and of sailing vessels 10,931 tons. Of this total tonnage the United States was credited with 4,074 tons, represented by four small sailing vessels.

Canadian Restrictions on American Halibut Interests Will Be Investigated by Washington Officials.—American interests concerned in the halibut industry have as yet taken no concerted action in filing a protest at Washington against the action of the Canadian authorities in denying to Americans the right to coal their vessels and to purchase bait at British Columbia ports. However, it is likely that the halibut men will get together within a few days and decide on some course of action.

It is expected that the interests affected by the new regulation would have entered an emphatic and concerted protest before this time, but as the question of Hecate Strait is already under negotiation between the State Department and Great Britain, it is believed that the matter of bait and coal will be considered at the same time.

When British Columbia claimed that Hecate Strait is within British territory, American halibut men made complaint to the State Department through the proper channels, and this matter is still in abeyance. The expectation is that all subsidiary issues at stake will be cleared up at the time the United States and Great Britain decide about Hecate Strait.

As indicating the attitude of the Ottawa government, the experience of the shipping firm of Frank Waterhouse & Co., with headquarters in Seattle, may be cited. Some time ago this firm endeavored to secure a subsidy from the Canadian government for the Australian mail line. The Canadians imposed the condition that this assistance would be granted only if these steamers withdrew from American ports. To this Mr. Waterhouse would not agree and negotiations were ended. The steamers of the Australian mail line will continue to call on Puget Sound, Eureka and San Francisco, as heretofore.

In the meantime American halibut men are planning to continue their industry as best they can under the new conditions. Herring bait will be secured outside of British Columbia. It is the general hope that the questions at stake will be speedily settled so that the business can be prosecuted without the uncertainty by which it is now hampered.

SHIPBUILDING NOTES.

Union Iron Works.

Extensive repairs have been completed on the Standard Oil barge No. 91, and she will shortly leave on a trip up the coast.

Barkentine Archer was on floating dock for cleaning, painting and hull repairs.

Cargo winches on the steamer Pleiades were repaired.

British S. O. S. S. Seminole and S. O. Atlas on drydock for general repairs and alterations.

S. O. S. S. Argyll at works for engine, boiler and hull repairs.

A. T. tug Slocum was on drydock for cleaning and painting and miscellaneous repairs. P. M. S. S. Siberia was at works for engine, boiler and hull repairs.

Tug Navigator at works for drydocking, cleaning, painting and hull repairs. A new iron propeller has also been fitted.

S. S. Watson was at works for drydocking, painting and hull repairs.

C. S. S. South Dakota was drydocked for miscellaneous repairs.

P. M. S. S. Pennsylvania was at works for engine, boiler and hull repairs.

New propeller has been fitted on the S. S. Centralia.

The steamer Algoa, which has been lying in the stream as a cold storage boat since January 22, 1907, was on Hunter's Point drydock for general repairs.

S. S. Santa Rita received engine and boiler repairs.

Bark Marion Chilcott was at works for hull repairs.

Barkentine Fullerton was at work for hull repairs.

The bark Agato, which has been laid up for twelve months in Oakland Creek, was on drydock for general overhauling.

The Union Iron Works has secured the contract for the construction of a steel passenger and freight steamship for the Monticello Steamship Company. The steamer is to cost \$300,000, and is to be completed within nine months. The new steamer will have a steel hull and water-tight compartments to insure the safety of the passengers. As the boat is designed to make the run between San Francisco and Vallejo in 75 minutes, she will have 3,000 horsepower engines. She will be 240 feet in length and have a beam of 49 feet and a 16-foot hold with four Scotch marine boilers.

The keels of the United States submarines Carp and Barracuda have been laid and the work is well on the way.

Work at Moore & Scott Iron Works.

The contract for the installation of the refrigerating chambers on the Logan was awarded to the Moore & Scott Iron Works, their bid being \$4,195.

This firm was also awarded the contract for the carpenter and joiner repairs aboard of the Logan, and the two jobs will necessitate a large force of mechanics working night and day until the vessel leaves.

The steamer Noyo was placed on the drydock for cleaning and painting and the renewal of the two garboard strakes.

The steamer Alcatraz was on the drydock for the renewal of her tail shaft, which was broken down south some few days ago. While on the dock, considerable additional work was necessary, so that the vessel remained on the dock for three days.

The French ship Bayard was placed on the drydock for cleaning and painting and repairs to her rudder. The rudder frame was cracked and repairs were made by the Goldschmidt thermit process, as recommended by Captain I. E. Thayer, the surveyor to bureau veritas. This will save time and expense of drydocking. This process was used by Moore & Scott in welding a new skey on the stern frame of the army steamer General McDowell with excellent results, the McDowell having been in active service ever since and the welding still holds strong.

The British ship Windsor Park was on the drydock Friday for cleaning and painting and other repairs, due to stranding.

Repairs are being made to the Associated Oil barge No. 2, which caught fire at Alameda Point two weeks ago. The tanks have been removed and an entire new deck has been installed. In fact, all the upper work will be new when the barge is again in commission.

The steamer Albion is alongside the wharf receiving minor repairs.

The barkentine Honoipu is going on the drydock for cleaning and painting.

The barkentine Kokohead, owned by Hind, Rolph & Company, has been docked, cleaned and painted.

The steamer San Jose was placed on the dock for the renewal of both stern frames, remaining on the dock for a period of six days.

The government steamer Lieutenant Harris will go on the dock on Tuesday next for the renewal of her propeller shaft and propeller.

Steamer Eir Repair Contract Awarded.—Following the recommendation of the underwriters the Norwegian owners awarded the contract for repairing the steamer Eir to the Heffernan Engine Works for the sum of \$78,000, the work to be completed within forty-five days. The damage to the steamer was estimated by the underwriters at \$60,000. The Bullen Machine Company of Victoria, B. C.; the Moran Company of Seattle, and the Wilamette Iron and Steel Works of Portland.

At the time the damage was received the Eir was leaving Grays Harbor with a cargo of lumber loaded in Grays Harbor, and lumber, flour and general merchandise taken at Tacoma. She was en route to the West Coast and is under charter to W. R. Grace & Co.

When the Norwegian steamer Eir was placed in drydock at Quartermaster Harbor, she was found to have sustained serious damage as a result of her stranding on the bar at the entrance of Grays Harbor. Her bottom is damaged its entire length and it is estimated that more than 100 plates will have to be removed.

Beginning about 60 feet from the steamer's stern and extending toward her bow for a distance of 100 feet, plates are dented and broken, and dented plates at intervals of her entire length show that she bumped hard from the time her bow passed over.

This contract is the largest of the kind awarded on this Coast in a long time. Last September repairs made to the German steamer Anubis aggregated about \$70,000.

Barge Maskeket Launched at Eureka.—The Bendixen Shipbuilding Company of Eureka has completed and launched the barge Maskeket, which was built for the Coggeshall Launch Company. The barge, which is one of the largest on the bay, is 75 feet in length, 52 feet in width and a depth of hold of 5 1-2 feet. The Maskeket will be fitted with a cabin, wheel-house and capstans.

The Dredger Scow California Launched at Honolulu.—The large dredger scow California, which was constructed for the Hawaiian Dredging Company, was launched on August 4th. The scow will be used in connection with the clearing out of the channel of Pearl Harbor and the bar that shuts the mouth of the harbor.

The dimensions of the California are: 130 feet in length, 60 feet in width and 13 feet in depth. Clamshell machinery will be placed aboard to operate a huge shell dredge and the dredge will be ready for operations in about a month, at which time she will be put to work at the bar on the mouth of Pearl Harbor. The dredge, which contains 225,000 feet of lumber, was constructed at a cost of \$20,000.

Steamer Antelope to be Completed Soon.—It is expected that the steamer Antelope, which is being constructed for the Hammond Lumber Company, will be completed within ten weeks. Work has been rushed on the vessel from the start as the company desires to improve the present service maintained by the original Antelope.

Bids Called for on the Portland Tug Boat.—Sealed bids will be received by the Port of Portland up to August 26 at 4 p. m. for construction of a steel hull, single screw tug boat, according to plans and specifications on file in office of the Port. Bids to be accompanied by certified check for five per cent, in favor of the Port of Portland. Deposit of \$150 required to insure safe return of plans furnished. Also, bids will be received up to August 12 at 4 p. m. for an 8-foot steel runner and side plates and food supplies for the months of September, October and November. Specifications on application to the Port.

River Improvement Commission in Session at Spokane.—The Columbia River Improvement Commission is in session in Spokane. It is expected that W. H. Anderson of Addy, Stevens county, will be made permanent chairman. \$50,000 was appropriated by the last legislature for the river work. If plans outlined are carried out the river will be opened from Hellgate to Bridgeport for boat travel by spring. Commission plans to let contract for a boat with which to start work, at next meeting.

Steamer Klamath to be Launched Within Month.—The construction work on the new steamer Klamath, which is being built at the Eureka shipyards for McCormick & Co. of San Francisco, is fast nearing completion and within about one month it is expected that the Klamath will be ready for launching. As yet the date for the launching of the vessel has not been set, as it has been impossible to tell exactly when the steamer will be finished. At first it was expected that the Klamath would be launched about September 1st, but there has been a slight delay in the work, occasioned by a shortage of material, and it will probably be a little later in the month before the steamer is ready for launching.

San Francisco's Fire Boats to be Ready Next Month.—According to the city engineer, the new fire tugs David E. Scannell and Dennis Sullivan may not be ready for use on contract time next month, but the Scannell is expected to be ready for her preliminary trials within a month, and will then be put through her paces, not only in speed but in ability to throw powerful streams. Several trials of the tug boats are to be held, under the strictest requirements, before they are finally taken over for use as fire fighters for the city. In the meantime, space for their docking is being prepared at the outer end of Harrison street wharf.

Showing the present condition of the tonnage market in England, not a bid was received at a recent auction sale at Liverpool of two splendid new passenger steamers. British shipping men are discussing this incident, asserting it is proof of the oversupply of tonnage.

The vessels in question were the Heliopolis and Cairo, built by the Fairfield yards at Govan less than two years ago for the passenger trade in the Mediterranean. The sale was ordered by the mortgagees, and the vessels were placed on the market at the minimum price of £150,000 each.

FIVE YEARS OF CANAL WORK.

Continued from page 6.

*Chiriqui	60		13		13	
Not classified.	60		13		60	
Total	542	10,292	7,518	2,592	1,291	22,235
Grand total	542	12,953	14,942	4,342	1,291	34,070

*Spanish laborers recruited in Cuba.

†Colombian negroes.

*Panamanian negroes.

Recruiting in the West Indies and Spain induced independent immigration, and it is estimated that as many men have been added to the common labor force who came to the Isthmus of their own initiative as have been sent directly by the labor agents. At present the supply of common labor on the Isthmus is greater than the demand, although some recruiting has been necessary in 1909, because of the indisposition of the idle men to accept work at the established rate of 10 cents an hour for West Indian laborers.

Quarters for Employees.

Most of the 2,149 buildings found in the Canal Zone when the Americans took possession were in poor condition. It was found profitable to repair 1,536 of them, chiefly for use as laborers' quarters or storehouses. They served a useful purpose in the preparatory years of Canal work, until the modern quarters constructed by the Americans were available. Over 1,500 buildings have been constructed by the Isthmian Canal Commission, of which 750 are for miscellaneous use; 200 as laborers' quarters, and the remainder as "gold" quarters.

Quarters for "gold" employees are located at the following places:

PLACE	BACHELOR QUARTERS			FAMILY QUARTERS	
	No. of houses	No. of rooms	No. of occupants	No. of houses	No. of quarters
Ancon	10	154	153	84	130
Bas Obispo	6	60	95	32	43
Corozal	2	90	96	28	52
Culebra	13	259	230	132	212
Cristobal	33	403	734	72	186
East La Boca	3	72	109	9	24
Empire	21	268	483	112	230
Gatun	15	184	314	45	110
Gorgona	20	279	378	83	171
Palboa	2	72	61	18	25
Las Cascadas	7	92	116	43	95
Miraflores	3	13	27	2	2
Paraiso	8	95	46	48	59
Pedro Miguel	10	95	166	36	63
Porto Bello	4	37	93	7	19
San Pablo	9	53	96	13	13
Tabernilla	6	61	69	22	35
Total	172	2,296	3,266	786	1,475

There are several types of "gold" family quarters, the employees being assigned quarters in accordance with their salary rating. All the houses are frame buildings without cellars, and are constructed as cheaply as possible, with the idea that they will be abandoned in a few years. The "types" differ from one another in size and arrangement of rooms rather than in style of construction, for the style is general. All the houses have screened porches in front and rear, are painted inside and outside, are supplied with electric lights, water connections, and toilet rooms, and are furnished with necessary pieces of furniture. The "gold" family quarters in most general use are known as type-14. A type-14 house is a two-story building with quarters for two families on each floor, each quarters having a screened veranda in front, with three doors entering directly into as many rooms, two of which are 12 feet square, and the third 8 by 12 feet. Back of these three rooms is a kitchen 8 by 10 feet, another screened veranda, and a toilet and bath room. Out of the total of 1,475 family quarters, 580 are of this type, while the majority of the remaining quarters afford practically the same accommodations.

Bachelor quarters for gold employees are in barracks containing from four to twenty-four rooms. The rooms are large enough

to accommodate two men. The furniture consists of a bed, a case of drawers for each man, table and chairs. The quarters are lighted with electricity, and have toilet and bath rooms on each floor.

The family quarters for laborers are in screened barracks of two types, one containing eight quarters, and the other five, each quarters having two rooms. The laborers' barracks are buildings fitted with standee bunks in double rows of three tiers each. The ordinary barracks has 72 bunks.

A statement of the quarters occupied in April, 1909, follows:

The number of family quarters occupied by "gold" employees was 1,505, and the occupants numbered 4,506; bachelor quarters by "gold" employees, 2,095, and the occupants numbered 3,422. The family quarters occupied by West Indians numbered 941, and the occupants 3,237; bachelor quarters, 245; number of occupants, 5,081. The family quarters occupied by European laborers numbered 279, and the occupants 887; bachelor quarters, 141; number of occupants, 4,657.

In each of four large villages—Cristobal, Gorgona, Empire, and Culebra—the Isthmian Canal Commission has erected clubhouses for the entertainment of the "gold" employees. These clubhouses are conducted by secretaries trained in Y. M. C. A. work, and are similar to the railroad Y. M. C. A. houses in the United States. Four more will probably be erected during the coming fiscal year. In eight large villages along the line of the Canal the Commission has also erected buildings in which religious services and meetings of various organizations are held. The Commission hotels, in places where there is no regular clubhouse, have club rooms over the dining rooms. Thus there is not a village in the Canal Zone, having a considerable number of "gold" employees, in which provision has not been made for social diversion.

Food and Clothing.

The Panama Railroad Commissary was established many years before American occupation of the Zone, and was maintained until 1904 as a general store in Colon. Since then it has been expanded in order to keep pace with the increase in population, until it has become the main source of food and clothing supply for 40,000 people. The commissary has storehouses, a bakery, a laundry, a cold storage and ice plant, and a general store in Cristobal and Colon, besides stores in twelve other villages. Cold storage supplies and ice are delivered in the Zone villages each morning by special train. Only Isthmian Canal Commission and Panama railroad employees are allowed to make purchases at the commissaries, and to insure this, no cash sales are made to residents of the Isthmus, all purchases being made with coupons issued by the Commission and charged against the employees' salary account.

Food for employees living in bachelor quarters is supplied by the hotels and messes maintained for each class of employees—hotels for "gold" employees, messes for European laborers, and mess kitchens for negro laborers. The hotels and messes are practically self-supporting.

To be Continued.

FLOUR IN CHINA.

Consul-General Charles Denby reports on the conditions of the flour market in China as follows:

In 1907 there were imported into China from all countries about 300,000 tons of flour, of which about 165,000 tons came from America. Since 1907 the import of American flour has steadily decreased until now it has almost ceased. It is reported that the stocks of American standard flour in Shanghai for Chinese consumption are wholly depleted, and only small stocks of American flour are held for the bakeries for the foreign market. This condition is due to three causes: low exchange, which naturally discourages imports in all lines; high prices of flour throughout the world, except China; and, most important of all for local purposes, the low price of rice in this market. The use of flour on a large scale as the food of the Chinese, depends upon its price as compared with rice. With rice cheaper than flour for the same food value, the Chinese prefer rice. It is, therefore, motives of economy and not preference for flour that lead to its consumption.



YACHTING SECTION



The second annual yacht race inaugurated by the Santa Cruz Beach Company and held under the auspices of the Corinthian Yacht Club of San Francisco took place on Sunday, August 8th. Eight yachts participated, as follows: Presto, Ruby, Frolic, Harpoon, Yankee and Nixie of the Corinthians; Monsoon of the San Francisco and Alert of the California.

The object of the race was a contest for the \$250 solid silver cup, mounted with buckhorn handles, presented by F. W. Swanton, the condition of the award being that the cup should be won three times successively to establish ownership. Last year the Ruby won first place and repeated the performance in this year's event. The first boat to round the lighthouse at Santa Cruz was the Monsoon of the S. F. Y. C., with Commodore Phillips at the wheel. The next to arrive was the Presto, followed by the Ruby, with Captain Stevens at the helm. The Ruby finished in 8:26, which, with time allowance, made her an easy winner in the class A yawl contest, and also in first place for the Swanton cup.

The Presto, for the second time during the season, demonstrating her claim as the speediest yacht of her class on the Coast. The illustration shows the Presto in action while winning the race against the Mah-Pe of San Diego for the perpetual cup. The race was run over the channel course in San Francisco Bay several weeks ago. The Presto is owned by W. F. Stone, the popular commodore of the Corinthian Club and general favorite and authority in yachting circles on the Pacific Coast.

In the race to Santa Cruz the Presto was in charge of J. Homer Fritch, one of the regular crew, navigated by Captain John Roberts, the crew consisting of Mayor E. K. Taylor of Alameda, William better known as "Kid" Nelson (a prince of entertainers), Jack Mooney and C. Willard Evans (admiral). The Presto was the second boat to arrive in Santa Cruz, completing the run in less than 14 hours, winning first prize in her class. On the return trip the Presto made the fastest trip of the fleet in the record time of 21 hours and 13 minutes from Santa Cruz light to Fort Point.

While in Santa Cruz, the yachtsmen were the guests at a dinner given at the Casino by Mayor Clark of Santa Cruz. The dinner and entertainment part of the yachtsmen's reception in Santa Cruz was in the master hands of Fred Swanton, president and manager of the Santa Cruz Beach Company, and was handled with the same degree of thought and eclat as made the city of Santa Cruz.

Commodore Stone and wife went to Santa Cruz by train, and were tendered a hearty reception. The commodore was enthusiastic over the performance of the Presto, and congratulated the crew for their efficiency, neat appearance and natty uniforms.

The Presto's prize is a beautiful silver loving cup, appropriately engraved, and is exhibited in the office of J. Homer Fritch on East street, San Francisco.

Starting out in a light 16-mile breeze, the nine yachts sailing in the 73-mile rate to Santa Cruz crossed the line as follows: Meteor, Corinthian Yacht Club, Captain Hogg, 5:26:10; Alert, California Yacht Club, Captain Kendall, 5:26:36; Presto, Corinthian Yacht Club, Captain Stone, 5:28:50; Harpoon, Corinthian Yacht Club, Captain Sharp, 5:29:12; Nixie, Corinthian Yacht Club, Captain Edwards, 5:33:25; Yankee, Corinthian Yacht Club, Captain Miller, 5:33:30; Monsoon, San Francisco Yacht Club, Captain Phillips, 5:34:15; Ruby, Corinthian Yacht Club, Captain Stevens, 5:35:30; Frolic, Corinthian Yacht Club, Captain Hammersmith, 5:40:23.



The sloop Starlight cruised to Bolinas Bay with a jolly party aboard on August 8. Pleasant weather was enjoyed throughout.

The sloop Alert (Capt. Kendall) had a collision with the sloop Yankee down at Santa Cruz during one of the races. The Alert's jib sheet jammed in the blocks and Capt. Kendall was unable to bring her about. The Alert's topmast was carried away, but the Yankee was more fortunate and sustained no damage whatsoever.

The popular sloop Sea Fox has been bought by Capt. Joe Jordan through the Pacific Motor Boat and Launch Exchange. It is expected she will fly the Corinthian Burgee.

The California Yacht Club will have a California Day on Sept. 12th. Games and sports of all kinds will be enjoyed. The Wallace trophy race will be sailed in the morning and when it is finished a dinner will be served the amateur tars. Dancing will be enjoyed during the afternoon on the upper deck of the clubhouse. Yacht owners are cordially invited to attend this carnival day in a bunch.

The prominent yachtsman, Capt. Bill Patterson, of the California Yacht Club, is going on a long cruise through Canada and Europe in his 1910 model White Steamer. O! you Bill! Good NIGHT!!



CREW OF PRESTO

J. Mooney, Kilt Nelson, Homer J. Fritch, C. W. Evans, Captain J. Roberts

In a specially arranged race at San Diego between the Minerva and Mah-Pe, both of the South Coast Yacht Club, of San Pedro, the Minerva was victorious. The course was to the Coronado Islands and return, a distance of about 36 miles. The Minerva won by nine minutes. After the race the visiting yachtsmen were entertained by the San Diego Yacht Club.

R. C. Zuckerman of Weyl, Zuckerman & Co. of Los Angeles, who has just opened a branch office in Stockton, is about to launch his \$2,000 gasoline launch just completed by the Stephenson Brothers, the well-known builders. The launch is 32 feet long, 6-foot beam, has a 15 horsepower Atlas gasoline engine, and can maintain a maximum speed of 12 knots an hour. The launch will be used by the office staff in conducting their potato and produce business.

In the Aeolian Club yacht race held August 8th, Merry Widow won with the Speedwell second, beating the latter by 5 minutes and 21 seconds. Emma was third, Edna fourth, Genesta fifth and Nautilus sixth. The race was held over the regular channel course from Meiggs wharf around the Presidio buoy and back again. Genesta carried away Dawn's bowsprit in the beginning of the race.

The new launch Tamale II, built for the San Diego Yacht Club by the Golarte Boatbuilding Company, was launched from the ways at the foot of E street, August 7 and towed over to the clubhouse. The new boat is 26 feet long and will be equipped with a six horsepower

engine of the latest model. It is designed for speed and will be used by the yacht club as a tender to the sailing fleet.

The Golarte company turned out the launch in remarkably quick time, it being the desire of the members of the yacht club to have the new boat in commission in time for the regatta two weeks from now, in which a number of northern boats will participate.

PROGRAM OF THE YACHT CLUBS IN SAN FRANCISCO BAY.

San Francisco Yacht Club.—H. A. Russel, secretary; J. R. Hanify, commander. Clubhouse, Sausalito.

Sunday, August 22—Open.

Thursday, August 26—Reception at clubhouse. 8:30 p. m., dancing.

Saturday, August 28—Cruise to Petaluma drawbridge.

Sunday, August 29—Return to Sausalito.

Wednesday, September 1—Members' night at clubhouse.

River cruise, special orders.—Saturday, Sept. 4; Sunday, Sept. 5; Monday, Sept. 6; Tuesday, Sept. 7; Wednesday, Sept. 8.

Corinthian Yacht Club.—Dr. J. L. McMahon, secretary; W. Frank Stone, commodore. Clubhouse, Belvedere, Cal.

Saturday, August 28—Petaluma.

Sunday, August 29—Return.

Saturday, Sept. 4—Alviso and meet S. B. Y. C.

Sunday, Sept. 5—Alviso.

Monday, Sept. 6 (Labor Day)—Return.

Golden Gate Yacht Club.—W. Carlisle, secretary; F. Mayno, commodore. Clubhouse, Sausalito.

Saturday, Aug. 28—

Sunday, Aug. 29—Cruise to McNears.

Sunday, Sept. 5—Power boat regatta. Rousseau, captain.

California Yacht Club.—E. A. Chamberlain, secretary; E. S. Broadwater, commodore. Clubhouse and anchorage, Brooks Island.

Saturday, Aug. 28—Open.

Sunday, Aug. 29—California Bay.

Saturday, Sept. 4—Open.

Sunday, Sept. 5—Open.

Starting out in a light 16-mile breeze, the nine yachts sailing in the 73-mile race to Santa Cruz crossed the line as follows: Meteor, Corinthian Yacht Club, Captain Hogg, 5:26:10; Alert, California Yacht Club, Captain Kendall, 5:26:36; Presto, Corinthian Yacht Club, Captain Stone, 5:28:50; Harpoon, Corinthian Yacht Club, Captain Sharp, 5:29:12; Nixie, Corinthian Yacht Club, Captain Edwards, 5:33:25; Yankee, Corinthian Yacht Club, Captain Miller, 5:33:30; Monsoon, San Francisco Yacht Club, Captain Phillips, 5:34:15; Ruby, Corinthian Yacht Club, Captain Stevens, 5:35:30; Frolic, Corinthian Yacht Club, Captain Hammersmith, 5:40:23.

CHARTER MARKET.

The grain handlers of Portland have gone to work under the old terms. The exporters have withdrawn their demand for open shop conditions and all is serene on the water front.

It is understood that the grain handlers were induced to sign up by the united action of the Water Front Federation.

A meeting was held and the result of it was given by Peter Kerr of Kerr, Gifford & Co. in this terse way: "The grain handlers have gone back to work on the old terms. We shall pay 35 cents an hour and 50 cents for overtime. We dealt with the men as a union. We have abandoned the idea of an open shop for the present. The whole controversy is settled satisfactorily."

With the price of wheat at an export basis, and the tariff question disposed of, shippers believe that the Pacific Coast ports are on the eve of an unprecedented commercial activity with foreign countries. During the next twelve months the imports and exports passing through Pacific Coast ports are expected to reach the greatest volume in the history of shipping from this section.

Though the tariff question was settled only a few days ago, a local importing firm has chartered a ship to bring a cargo from Europe. Previous to this there had been comparatively no action taken looking toward the importation of European freight to this Coast. A limited quantity of goods was arriving on the American-Hawaiian steamers, but there was no business being done on an extensive scale. From now on it is declared that the chartering of ships to come this way with general cargoes will be a common occurrence. For the past few months it has been a rarity. The great majority of the ships now en route to Portland are coming in ballast.

Grain tonnage en route to the Columbia river now amounts to 94,689 net tons register. This is a trifle less than the tonnage on the list at the same time last year. The majority of the craft headed for Portland are for loading prior to January 1, and there are a number of spot ships to be had in case of an emergency or an unlooked-for shortage in available ships for Spring loading.

Charter negotiations are said to be under way for the fixture of the three British sailing vessels lying at British Columbia ports to carry grain from the Sound to the United Kingdom. These are the British ship Senator, the British bark Haddon Hall and the British ship Halewood. The Senator is thought to be under charter at the present time, though no announcement of the fixture has been made. She has been lying at Esquimalt since May, 1908, and has just been ordered to the Sound for docking and cleaning.

Members of the Steam Schooner Owners' Association deny the report that two or three score of vessels will be placed in commission as a result of an increase in freight rates along the coast. About one-third of the total number of steam schooners on the Coast are laid up. Mills at Grays Harbor advanced the price of lumber with the expectation, it is said, that the schooners would steam up and look for business. Owners cannot see their way clear to advance freight rates enough to attract more business. Lumbermen say that the present low freight rates are not due to a slack demand for lumber so much as an overproduction of steam schooners a few years ago, when charters were high. The demand for lumber, they say, is normal and a normal amount of timber is being cut.

FOLLOWING IS THE LIST OF CHARTERS REPORTED.

British schooner G. W. Wolff, lumber, Hastings Mill to Delagoa Bay or Port Natal, at 52s 6d; American steamer San Mateo, general merchandise, Puget Sound to New York; British steamer Willesden, lumber, Puget Sound and Eureka to Melbourne and Adelaide at 35s; French bark Genevieve Molinos, wheat, Puget Sound to United Kingdom, Antwerp or Denmark, at 27s 6d; British tank steamer Seminole, refined oil, San Francisco to the Orient; American schooner, lumber, Gray's Harbor to Guaymas; French bark Deguay Tronin, wheat, Portland to United Kingdom at 27s 6d; French bark Notre Dame d'Amor, general cargo, Antwerp to Portland; American schooner Alvena, lumber, Aberdeen to Southern California; French ship Admiral Cocillo, wheat, Portland to Europe, 27s 6d; American schooner Irene, lumber, Gray's Harbor to Guaymas at \$5; American barkentine Koke Head, lumber, Hastings Mills to Sydney, at 32s 6d; British steamer Wooden, steel, New York to Vancouver, B. C.; British steamer Foxley, steel, New York to Vancouver, B. C.; British ship Arranmore, nitrate, Callao to United Kingdom; British bark Englehorn, nitrate, Mejillones to United Kingdom; British bark Levernbank, nitrates, at Iquique to Balboa, Spain.

* * *

Advices from Yokohama state that the British bark Howard D. Troop has been scuttled in the harbor to extinguish fire that broke out on board. The ship is supposed to have been badly damaged. The Troop was under charter to load grain at Portland for Balfour, Guthrie & Co.

At a recent dinner given to Speaker Cannon at the New Willard Hotel, Washington, D. C., President Taft pledged his support of the American merchant marine as follows:

"Something must be done in the matter of merchant marine legislation and done quickly. I have taken occasion, whenever I have been asked, to express myself frankly concerning my attitude. There seems to have been a superstitious fear of the use of the term 'subsidy.' I am not afraid of it. I feel that, with the increased amount of information the people of the country are obtaining on this subject, the cause will have a substantial majority in the House on the next vote. I pledge my best efforts to bring this about."

STEAMSHIP CAPASTRANO.

The steamship Capastrano is a modern built vessel in every particular, owned by J. Homer Fritch of San Francisco, and is engaged in the coasting freight trade, principally in the lumber industry. The Capastrano is a wooden vessel, built at Aberdeen, Wash., in 1907, is 648 gross and 362 net tons; length, 175.1 feet; breadth, 38.3 feet, and depth 12.4 feet; carries a crew of 21 men, has an indicated h.p. of 450, and capacity for 750,000 feet of lumber. Power is derived from surface condensing marine engines, served by Scotch marine boilers.

The Capastrano is one of a fleet of four vessels operated in the coasting trade by J. Homer Fritch, who enjoys a just share of coast business. Other vessels of the Fritch fleet are equipped for passenger service to northern ports. Occasionally one of the vessels makes a trip to South Alaskan ports. The Capastrano is at present commanded by Captain Close, the former commander, Captain F. I. Preble, having recently died in Seattle.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

Office of the U. S. Light-House Inspector,
12th District.

NOTICE TO MARINERS—Piedras Blancas, California.
(List of Lights and Fog Signals, Pacific Coast, 1908, Page 12,
No. 17, and List of Lights, Buoys, and Daymarks, Pacific Coast,
1908, Page 19.)

Notice is hereby given that, about September 20, 1909, the
regular characteristic of the 1st-order light at Piedras Blancas,
California (fixed white varied by a white flash every 15 secs.),
will be restored, the repairs to the revolving mechanism having
been completed.

By order of the Light-House Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, 12th Light-House District.

Pilot chart of the North Pacific Ocean is being distributed by
the United States Hydrographic Office. The chart contains
much valuable information regarding sailing routes in the North
Pacific, also a treatise on the subject of cyclonic storms. The
new regulations for signaling depth of water, Gough Island,
Astraea Channel, entrance to the Whangpoo River, is given in
detail. Copies of the chart may be obtained at the branch
offices of the Hydrographic Office in all principal ports.

Office of U. S. Light-House Inspector,
12th District.

Applications for civil service examination will be received at
this office during the next thirty days for forming list of
eligibles from which to select assistant keepers of light-houses
in the Twelfth Light-House District (California). Applicants
must be citizens of the United States over eighteen years of
age.

Application blanks and full information can be obtained by
applying to this office.

W. G. MILLER, Commander, U. S. N.,
Chairman Local Civil Service Board for the Light-House
Service (Inspector's Department).

PORT FACILITIES.

Nagasaki, Japan, is one of the best harbors in the Orient,
and a great amount of shipping passes through it. There is
no bar and the water is deep and free from dangers. Mooring
buoys are provided in five to seven fathoms of water, and
there is good anchorage in the same depths. There are two
small piers used by coasting steamers, but the majority of

vessels moor to buoys. The entrance is not difficult, and pilots
are not necessary, although it is advisable for a stranger to
take one the first time. They are reliable, and their charges
are reasonable. Io-shima light-house is first made, then steer
for Naginato Sako light, where pilots are taken. It is necessary
to anchor off quarantine in fifteen fathoms of water to receive
pratique before entering the port.

Coal, water and provisions of all kinds are readily obtain-
able at reasonable prices. Coal is handled from lighters in
baskets, mostly by women, and is put on board very quickly.
Ships handle cargo with their own gear into lighters. Labor is
plentiful, cheap and good. Japanese money is used at the rate
of two yen, equal to one American dollar. There are excellent
facilities for repairs of all kinds. There are three drydocks,
the largest of which is 722 feet long, with a depth of water over
the keel blocks of 34 1-2 feet. (This report, showing condi-
tions existing March, 1909, was furnished the Branch Hydro-
graphic Office at New York, N. Y., and San Francisco, Cal.,
through the courtesy of Officer James B. Pattison of the British
steamer Karonga, Captain Leslie; Officer G. Smith of the
steamer Mongolia; Captain H. Morton; Captain J. W. Saunders,
of the steamer Manchuria, and Second Officer D. Shaw of the
British steamer Braemar, Captain A. M. Saxby.)

K. Komatsu, Director General of Communications of
the Empire of Japan, has signed an agreement with the
United Wireless for handling aerograms from the Japan-
ese vessels arriving at Pacific Coast ports. Heretofore
the Japanese liners have had no arrangements whereby
they could communicate with land while off the American
coast. The United States Government wireless stations
will not handle commercial messages.

The rate agreed upon between the Japanese Govern-
ment and the United Wireless is eight cents a word. All
the wireless instruments aboard Japanese steamers are
controlled by the Government, and for this reason the
agreement was made by the Government.

HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

TIDE TABLE TO WEEK ENDING SATURDAY, SEPTEMBER 18												
Golden Gate Entrance to San Francisco Bay.												
AUGUST												
1st quar	Sun	22	3:48	3.7	9:00	2.2	15:33	4.9	22:22	1.6		
	M	23	5:18	3.5	9:45	2.5	16:07	4.9	23:25	1.3		
	W	24	6:56	3.5	10:38	2.9	16:53	5.0				
	Th	25	8:26	0.8	8:08	3.7	11:43	3.2	17:52	5.2		
	F	26	1:25	0.3	9:02	4.1	12:53	3.3	18:57	5.5		
	S	27	2:18	0.2	9:47	4.4	14:00	3.2	20:00	5.7		
	S	28	3:08	0.6	10:26	4.7	15:00	3.0	21:00	6.0		
	Sun	29	3:55	0.8	11:00	4.9	15:53	2.6	21:55	6.1		
Full	M	30	4:38	0.9	11:34	5.2	16:43	2.2	22:48	6.1		
	P	Tu	31	5:22	0.7	12:07	5.4	17:33	1.8	23:40	6.0	
SEPTEMBER												
	W	1	6:03	0.3	12:42	5.5	18:25	1.4				
	Th	2	6:38	5.7	6:50	0.2	13:18	5.5	19:18	1.1		
	F	3	1:32	5.3	7:35	0.9	13:56	5.5	20:10	0.9		
	S	4	2:38	4.9	8:18	1.5	14:35	5.5	21:04	0.7		
3d quar	Sun	5	5:57	4.5	9:05	2.2	15:21	5.5	22:15	0.6		
	M	6	5:30	4.1	10:58	2.9	16:13	5.5	23:28	0.4		
	T	7	6:58	4.1	11:02	3.2	17:16	5.4				
	W	8	0:42	0.2	8:11	4.3	12:18	3.4	18:25	5.4		
	Th	9	1:48	0.0	9:06	4.5	12:37	3.4	19:30	5.4		
	F	10	2:42	0.2	9:54	4.7	14:42	3.2	20:30	5.5		
	S	11	3:30	0.3	10:32	4.8	15:33	3.0	21:24	5.0		
	Sun	12	4:08	0.2	11:08	5.1	16:16	2.7	22:12	5.5		
	M	13	4:43	0.0	11:36	5.2	16:55	2.3	22:57	5.4		
	Th	14	5:14	0.3	12:01	5.2	17:33	2.0	23:40	5.2		
	W	15	5:51	0.6	12:25	5.1	18:10	1.8				
	Th	16	6:20	4.9	6:22	1.1	12:48	5.1	18:47	1.6		
	F	17	1:00	4.6	6:50	1.6	13:06	4.9	19:25	1.4		
	S	18	1:46	4.4	7:18	1.9	13:25	4.9	19:58	1.2		
	Sun	19	2:40	4.1	7:50	2.3	13:48	4.9	20:45	1.1		

Time used Pacific Standard 120th Meridian W.
Oh—midnight 12h—noon less than 12 Forenoon, greater than 12—after-
noon Higher numbers—12—afternoon time.
N.—New Moon, E.—Moon on the Equator, N. E.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

Place	Feet	Date	Remarks
Grays Harbor	19	July 7	Channel getting broader.
Willapa Bay	27	June 9	No change in channel; 16 ft. M. L. W. in channel to South Bend
Columbia River	25	May 28	
Nehalem River	5	July 15	Bar buoy out of position; chan- nel shifted South; 500 feet; very narrow.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in chan- nel to Garibaldi.
Yaquina Bay	14	June 2	Channel narrow; shifting to Southwest.
Siuslaw River	5 1/2	Aug. 4	
Umpqua River	10	July 1	Channel is in good condition.
Coos Bay	17	Aug. 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	5	July 1	Channel close to north jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on the bar.
Klamath River	7	July 1	Channel straight at present.
Humboldt Bay	20	July 1	21 ft. in straight channel 20 ft. in channel.
San Pedro Bay	19	Aug. 6	No change in channel.
San Diego Bay	25	July 8	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

The tariff bill as finally passed by the House on July 31st repeals the so-called reciprocal tonnage tax exemption law of 1886. Vessels entering from the Netherlands, Copenhagen and Dutch East Indies 60 days after the bill is signed will pay 6 cents per ton as from other European and Asiatic ports. Vessels from Ontario, Colon and Panama, and a few lesser West India islands, will hereafter pay 2 cents. The general rate on vessels from Quebec, British Columbia, Nova Scotia, New Brunswick, Newfoundland, Mexico, Central America, Cuba and the West Indies will be reduced from 3 cents to 2 cents, or 10 cents instead of 15 cents a year. The passage of the section forestalls a possible loss of \$325,000 in our revenue through repeal of British light dues and a demand for reciprocal exemption in the United States of ships from the United Kingdom.

Section 36. That a tonnage duty of 2 cents per ton, not to exceed in the aggregate 10 cents per ton in any one year, is hereby imposed at each entry on all vessels which shall be entered in any port of the United States from any foreign port or place in North America, Central America, the West India Islands, the Bahama Islands, the Bermuda Islands, or the coast of South America bordering on the Caribbean sea, or Newfoundland, and a duty of 6 cents per ton, not to exceed 30 cents per ton per annum, is hereby imposed at each entry on all vessels which shall be entered in any port of the United States from any other foreign port, not, however, to include vessels in distress or not engaged in trade.

This section shall not be construed to amend or repeal section 2792 of the Revised Statutes as amended by section one of chapter 212 of the laws of 1908, approved May 28th, 1908, or section five of the said chapter 212 of the laws of 1908, or section 2793 of the Revised Statutes.

Section 4232 of the Revised Statutes, and sections 11 and 12 of chapter 421 of the laws of 1886, approved June 19, 1886, and so much of section 4219 of the Revised Statutes as conflicts with this section, are hereby repealed.

This section shall take effect 60 days after the approval of this act.

Section 19 of the new tariff bill extends from two months to six months the period in which American vessels, built of imported materials free of duty, may engage in the coastwise trade. It reads:

Section 19. That all materials of foreign production which may be necessary for the construction of vessels built in the United States for foreign account and owner-

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ship, or for the purpose of being employed in the foreign trade, including the trade between the Atlantic and Pacific ports of the United States, and all such materials necessary for the building of their machinery, and all articles necessary for their outfit and equipment, may be imported in bond under such regulations as the Secretary of the Treasury may prescribe; and upon proof that such materials have been used for such purposes no duties shall be paid thereon. But vessels receiving the benefit of this section shall not be allowed to engage in the coastwise trade of the United States more than six months in any one year except upon the payment to the United States of the duties of which a rebate is herein allowed. Provided: That vessels built in the United States for foreign account and ownership shall not be allowed to engage in the coastwise trade of the United States.

The Chinese Board of Posts and Communications propose to finance a shipping company to operate steamers on a regular schedule on the rivers and along the coast of China, and to establish a steamship line to Singapore, Java, Australia, San Francisco, Yokohama and Bombay.

It is understood that a German shipbuilding company will shortly receive an order for the first ten steamers.

An enormous capital will be contributed equally by the Chinese government and merchants interested in the enterprise, and the management will be under their joint supervision.

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SATURDAY, SEPTEMBER 4, 1909

VOL. II

NO. 17

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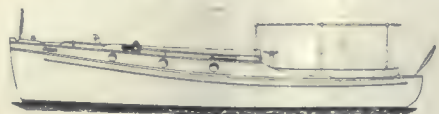
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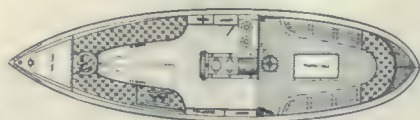
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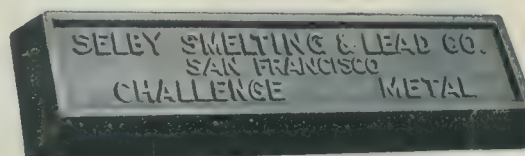
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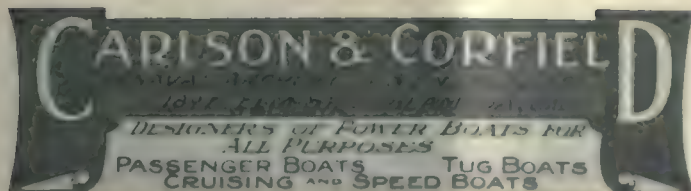
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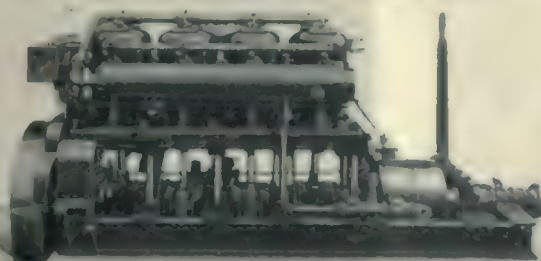
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Volume II

SATURDAY, SEPTEMBER 4, 1909

Number 17

A SUCCESSFUL WHALING CRUISE.

The return of the bark *Gayhead* to the harbor of San Francisco with 34,000 gallons of sperm oil, after a cruise of five months in the North Pacific ocean to Middleton Island, in the Gulf of Alaska, recalls the halcyon days of the whaling fleet, when, in 1891, the price of whale bone reached the sum of \$6.70 per pound. At about the same time the price of sperm oil had declined to 25 cents per gallon, but served as the medium of exchange for the equipment of the vessels; which is not of minor importance, particularly those engaged in the bone fisheries, which necessitates preparations for a cruise lasting from one to two years, and dangers of the Arctic seas, the only northern fishing grounds for the bone-producing "Arctic right whale." The "bowhead whale" of the Okhotsk Sea, belongs to the same species as the right whale; its range, however, is circumpolar. Though frequently found on both sides of the Greenland coast, and passing from one sea to the other, in the Bering Sea the bowhead is seldom seen south of the fifty-fifth parallel, while in the Okhotsk its southern limit is about the latitude of 54 degrees.

The size of whales, as of all other things whose most striking attribute is magnitude, has been greatly exaggerated; but, when reduced to the limits of sober fact the Greenland right whale of 50 feet long, the sperm whale of 60 and the great northern rorqual of 80 exceed all other organic structures known, past or present. The general name whale is applied to all the larger marine mammals of the Cetacea, which are divided into the two sub-orders of the whalebone whales and the toothed whales. One of the most striking characteristics of the former is the garniture of the mouth. Instead of teeth there is a strainer-like appendage called baleen, or whalebone, consisting of several hundred horny, elastic slabs or plates, which are attached to each side of the upper jaw. The number of slabs on each side ranges from 260 to 360. This number, as well as the length and quality, varies with the species and size of the whale. The longest slabs are in the middle of each side, and they gradually decrease in length toward the ends of the jaw. When the whale's mouth is closed the baleen fits into grooves; when the mouth is opened the baleen springs forward so as to fill entirely the space between the jaws, permitting the water to pass through, but imprisoning the small mollusks upon which the animal feeds.

The different species of bone-bearing whales yield baleen differing much in length, formation and quality, the choicest being from the bowhead, which has constituted the great bulk on the market during the past forty years. Next in order of length, but coarser in quality, comes the bone of the northern right whale; while the baleen of the southern right whale is shorter and not of as good quality as either of the others. Some of the bone is very long, single slabs measuring ten feet or more in length, the width at the butt approximating ten or twelve inches. Formerly the Arctic fishermen secured baleen fifteen feet in length, but in late years twelve feet is about the maximum.

The quantity of whalebone obtained from the different species of whale varies greatly. The bowhead produces far more than any other, the general average of which is from 15 to 20 pounds of bone for each barrel of oil secured. The northern right whale yields about 11 pounds to the barrel of oil. The record of 3,100 pounds of baleen was taken from a bowhead whale in the Bering Sea October 20, 1883.

The entire subject of cetacea in many respects characterizes the whole as the most interesting and wonderful of all creatures. A study of their structure and habits presents much that is difficult to understand, much that leads to great generalizations and throws light upon far-reaching philosophical speculations. One of the first lessons which the study affords is that in the endeavor to discover what a creature it really is, from what others it is descended, and to what it is related, the general outward appearance affords little clue. There was once a common idea that a whale is a fish. To realize the fallacy of this notion we have only to consider what a fish really is; what under all the diversities of form, size and color known among fishes there is common to them all, and we see that in everything which characterizes a true fish and separates it from other classes, as reptiles, birds and mammals, the whale resembles the last-named and differs from the fish. It is as essentially a mammal as a cow or a horse, and simply resembles a fish externally because it is adapted to inhabit the same element. The whole structure of a whale is a most instructive instance of a type of organization which is common to and characteristic of the class Mammalia, only specially modified or adapted to a peculiar mode of life. The external fish-like form is perfectly suited for swimming through the water; the tail, however, is not placed vertically as in fishes, but horizontally, a position which accords better with the necessity for rising to the surface for the purpose of breathing. The function of keeping the body warm is supplied by a thick layer of non-conducting material, the "blubber," a peculiarly dense kind of fat placed immediately beneath the skin. The fore-limbs, though functionally reduced to mere paddles, with no power of motion except at the shoulder joint, have beneath their smooth and continuous external covering all the bones, joints and even most of the muscles, nerves and arteries, of the human arm and hand; and rudiments of even hind legs are found buried deep in the interior of the animal, apparently subserving no useful purpose, but pointing an instructive lesson to those who are able to read it.

Some of the contentions made apply to the "sperm whale," particularly as applied to form, which is radically different to the faintest conception of all other denizens of the deep. The head is about one-third of the length of the body, very massive, high and truncated in front, owing its large size and remarkable form mainly to the great accumulation of a peculiarly modified form of fatty tissue filling the large hollow on the upper surface of the skull. The contents of the cells in this great cavity yield from 300 to 400 gallons of oil. The thick covering of blubber which everywhere envelopes the body produces the valua-

ble sperm oil of commerce. The single blowhole is a longitudinal slit, placed at the upper and anterior extremity of the head to the left side of the middle line. The peculiar spouting of the sperm whale is quite different from all other species of whales; the spouting being at an angle and forward from the body; while that of all the other species is upward and perpendicular to the body. This characteristic of the sperm whale is the signal to the lookout on the vessel as to the kind of whale sighted. The opening of the mouth is on the under side of the head, considerably behind the end of the snout. The lower jaw is extremely narrow, and has on each side from twenty to twenty-five stout conical teeth, which furnish ivory of good quality. The pectoral fin or flipper is short, broad and truncated, and the dorsal fin a mere low protuberance. The only known species of sperm whale is one of the most widely distributed of animals, being met with usually in herds or "schools" in almost all seas, but seldom in the polar regions. The seasons of the northern fisheries for sperm whale are usually from March to November, and vice versa in southern waters. "Ambergris," an article of great value in the manufacture of medicines and perfumes, is a concretion formed in the intestines of the sperm whale.

Whale fishing is accompanied by the average fisherman's luck, and the element of speculation grows with the quality of equipment of the expedition. Opinion is divided as regards the practicability of steam or sailing vessels in the industry. The approximate cost of equipping a sailing vessel for a season's cruise is from \$8,000 to \$12,000, and for a steam vessel from \$20,000 to \$30,000.

For a number of years the whaling fleet operating from San Francisco constituted one of the city's main industries, no less than sixty vessels being engaged in the service. Owing to various causes, mainly through expeditions from other countries and substitution of other goods to take the place of sperm oil and whalebone, the market became flooded with these articles until at the present time the warehoused whalebone in the United States amounts to about 250,000 pounds, or sufficient to supply the demand for two years; while, for the reasons stated, sperm oil is less in demand than heretofore, and the demand being limited, the price holds good at about fifty cents per gallon. As a result of these conditions the whaling fleet of the United States is now reduced to about twenty to thirty vessels, four of which are owned in and operated from San Francisco. The John and Winthrop, at present on the coast of Japan, and the steamers Karluk and Hermann in the Arctic. New Bedford, Mass., has a fleet of about twenty or twenty-five vessels, which operate according to season, mainly in the north and south Atlantic oceans. It is claimed that the cost of outfitting a whaling vessel is decidedly in favor of the Atlantic coast.

The following figures indicate the growth and decline of the whalebone industry in the United States since 1820:

Year.	Production.	Value per lb.
1821.....	62,893 pounds.....	\$0.12
1829.....	563,654 ".....	.25
1844.....	2,532,445 ".....	.40
1852.....	1,259,900 ".....	.51
1853.....	5,652,300 ".....	.35
1857.....	2,058,850 ".....	.97
1864.....	760,450 ".....	1.80
1877.....	160,220 ".....	2.50
1880.....	464,028 ".....	2.00
1887.....	585,011 ".....	3.12
1891.....	297,768 ".....	6.70
1893.....	411,315 ".....	3.08
1899.....	207,650 ".....	2.50
1904.....	123,300 ".....	5.80

For the year ending June 30, 1908, the United States imported for consumption 52,386 gallons of whale oil valued at \$20,584, on which was collected a duty of 8 cents per gallon. During the same period was imported free of duty 9,154 pounds of unmanufactured whalebone. Exports of domestic goods for the year amounted to 18,507 gallons of whale oil, valued at \$8,146, and 53,167 pounds of whalebone, valued at \$210,444.

The above figures, furnished by the Bureau of Statistics, indicate the decline of the whale fisheries in the United States. The reduction in the yield of whalebone has been largely counterbalanced by increase in the value per pound. In 1904 San Francisco had 9 steamers, 3 schooners and 2 barks engaged, a total of 14 vessels of 3,925 tons register, and valued at \$202,000. The crews comprised 517 men; the outfit of the vessels and advances made to crews amounted to \$242,626. There was one steamer and one sailing vessel less than in 1899, and the number of whales taken shows a large decrease since that



BARK GAYHEAD—Capt. J. A. Wing.

year. The catches were 45 bowheads, 8 right and 1 sperm, or a total of 54 whales, in 1904, compared with 101 bowheads, 7 right and 6 sperm whales, or a total of 114, in 1899. The products and their value in 1904 aggregated 86,514 pounds of whalebone, worth \$375,374; 1,220 pounds of trade bone, worth \$4,745; \$1,395 worth of ivory, \$5,053 worth of furs; 41,869 gallons of whale oil, worth \$17,161; 1,512 gallons of sperm oil, worth \$756. The total value of products from 16 vessels in 1899 amounted to \$458,692, compared with \$404,484 from 14 vessels in 1904. During 1904 the largest catch by any vessel was 9 bowheads; 3 vessels made no catch.

With innumerable possibilities of a loss to the enterprise, Charles T. Foster, L. E. James and Captain James A. Wing of San Francisco purchased the bark Gayhead, and refitted and equipped her for a seven months' cruise in the North Pacific Ocean. The Gayhead is a wooden vessel of 252 net tons, built at Mattapoisett, Mass., in 1877,

especially for the whaling trade, her length over all is 110 feet, 27 feet 6 inches beam and depth of 15 feet, is solid oak framed and copper fastened throughout, with accommodations for a crew of 30 men. The construction and equipment of the Gayhead qualifies her for the whale fisheries only, and unless engaged therein would be relegated to Uncle Sam's merchant marine crematory in the Oakland estuary.

Captain J. A. Wing, formerly operating in the whale fisheries from New Bedford, Mass., and for the past twenty-five years in the same line from San Francisco, and recognized as one of the most efficient and successful whalers on the Pacific Coast, was placed in command of the Gayhead, which left San Francisco March 25th, with a crew of 29 men and provisions for a cruise of seven months. Sailing almost due north and avoiding the North Pacific drift current, Captain Wing reached Middleton Island and sailed leisurely to the westward, encountering a severe gale at Unimak Pass, where the Gayhead, with a large sperm whale alongside, was driven on the rocks; the whale was abandoned, the increased fury of the storm proved the salvation of the vessel, and the voyage proceeded. Parly due to the storm, but mainly from the resentment of a captive whale, three of the Gayhead's whale boats were almost completely demolished. Captain Wing's description of the demolition of one of the boats, as viewed through his glass from the deck of the Gayhead, is intensely interesting. Having sighted a monster sperm whale, the boat's crew of six men succeeded in securing a good grip with the harpoons. With every trick known to the whaler's art, the men endeavored to make short work of the leviathan; but coming suddenly to the surface the whale struck the boat amidship. Immediately dewatered boat, men, waves, whale and what-not formed a scene on the horizon far beyond conception by picture, words or pen.

Five months to the day from the time of leaving Captain Wing used the ship's anchor for the first time, dropping same in San Francisco Bay. The captain reported the exceptional number of whales seen on the voyage, and regretted the contracted storage limits and want of casks whereby 6,000 gallons could have been easily added to the 34,000 gallons taken.

In all the Gayhead captured 25 whales, while the average yield from each whale is about 2,500 gallons. Circumstances and the element of time intervening between the capture of one whale and the sighting and capture of another regulate the amount taken from each captive.

The work of capture, cutting, rendering of the blubber and storing of the oil in barrels or tanks on the vessels is reduced to a minimum, and is surrounded with every modern convenience to facilitate the labor and avoid danger to the lives of those engaged.

The whaleboat is usually about 27 feet long, 6 feet breadth, and depth of 2 feet 6 inches. The bow contains a platform pierced by two low wooden posts, the farthest forward known as the "gun-bollard head," upon which is mounted the harpoon gun. On the other post the whale line is fastened, which glides over a pulley located between the headboards. On the port bow side, close to the gun-bollard head, is fitted a tub into which is carefully coiled that part of the whale line known as the "foregoer." The whale line proper is contained partly amidship and partly

astern. The whaleboat crew consists of five oarsmen and one helmsman. The bow oar has charge of the boat, and acts as harpooner. The stroke oar is "line manager," and watches the whale line while it is running. The harpoon gun now almost universally used measures 4 feet 6 inches in length, and is charged with specially prepared caps loaded with tonite (tonite has about ten times the explosive power of black powder). Gun and hand harpoons are used, and are somewhat similar in construction, the mechanical adjustment being such as to insure their holding powers. The hand harpoon known as a "toggle iron," is an American invention consisting of a head and shank of iron, mounted on a wooden stock to serve as a handle. Whale line is a three-stranded rope, $2\frac{3}{4}$ inches in circumference, and is made of the finest quality of hemp, remains perfectly flexible when wet or dry. Each strand of the rope consists of 13 yarns, and is capable of standing a strain of 200 pounds for each yarn, usually about 600 fathoms (3,600 feet) are coiled into each boat. The line is joined to the harpoon by the "foregoer," a piece of rope somewhat lighter and more pliable than whale line. The foregoer being the only part of the line drawn out by the harpoon while in flight, its length, usually from 10 to 12 fathoms, regulates the distance the harpoon may be fired.

In pursuit of whales, a careful look-out is maintained from the crow's nest (a barrel lashed to the maintop-gallant-masthead), also from the deck, during all daylight hours. Upon sighting a whale known to be of the proper species, boats are sent out. If the animal is feeding, which it generally does when near the surface, by swimming backwards and forwards horizontally, great caution is necessary to prevent its becoming aware of the approach of the boats. On the other hand if the whale is spanning, i. e., swimming in a decided direction and appearing at the surface at intervals more or less regular, less caution is observed. Extreme care is used in either case, and the animal usually approached from behind, the harpooner firing his gun at the proper time. Some species of whale on being harpooned immediately dive perpendicularly, and remain under water for about 40 minutes. Before the animal has returned to the surface, other boats have arrived, join the chase and attach more harpoons. Either swimming or diving, the whale, when pierced by the harpoons, soon becomes exhausted. Whenever its motions become sufficiently slow to permit the close approach of the boats, the lance is used, a few thrusts in the region of the heart or lungs being speedily fatal. Quantities of blood are thrown up by the spiracles, the animal lashes the water with its fins, and, after rushing through the water in its dying agony, rolls over on its side and lies rigid on the surface of the water. Under favorable circumstances the capture of a full grown whale, from the time of first harpooning until its death, occupies from one to one and a half hours. The operation of flensing is next performed. The body of the whale is lashed lengthwise alongside the ship, with its under surface above the water. The "cant-purchase," a powerful tackle, is then attached. By means of the cant-purchase the body is caused to rotate, whilst the fat is removed from the different parts as they appear above the water in large "slips" or "blanket pieces," each a ton or more in weight. After being received on deck, the blubber is cut into "horse-pieces" and placed in the rendering furnace. The surplus fibrous parts of the blubber retains sufficient oil to be used as fuel for the furnace. The hot oil runs from the furnace vat to a cooling tank, thence to an open cauldron, which is maintained at such a degree of temperature as to insure easy flow through a hose to the casks or tanks in the hold of the vessel.

BOND ISSUE FOR CANAL CONSTRUCTION.

The tariff act, which was approved by the President on August 5, authorizes a bond issue of \$290,569,000 in addition to the \$84,631,900 heretofore issued for canal construction. The Urgency Deficiency Act, approved the same day, authorizes the President to enter into such contracts, not exceeding the amount of the bond issue authorized, as may be necessary to complete the canal and harbors.

The act of June 28, 1902, authorizing the construction of an Isthmian canal, provided for the issue of \$130,000,000 worth of bonds, and also limited the amount that could be appropriated for the Panama Canal to \$135,000,000, in addition to \$10,000,000 for preparatory work, \$40,000,000 for the property of the new Panama Canal Company, and a sum to be agreed upon to be paid to the republic of Columbia. Under this authority there had been expended for canal work up to May 31, 1909, \$104,177,884.86, and in addition the \$40,000,000 had been paid to the New Panama Canal Company, and \$10,000,000 to the republic of Panama, a total of \$154,177,884.86. The appropriations available up to June 30, 1909, amounted to \$176,332,468.58, and the amount appropriated for the current fiscal year is \$33,638,000. Expenditures for canal work have been paid from bonds aggregating \$84,631,900, and money advanced from the miscellaneous funds of the treasury.

The bond issue authorized by the law of August 5, 1909, brings the amount authorized for canal work up to \$375,200,900. The amount estimated by the commission in December, 1908, as necessary to complete the lock-level canal was \$375,201,000.

EARTHQUAKE AT PANAMA.

The hidden foe of all engineering problems and mankind in general has visited the Canal Zone. The earthquake of the morning of August 30th, whilst confined to the Pacific side in the neighborhood of Panama and Colon, was sufficiently severe to cause much confusion and alarm to the population. No account is given of damage to property in either place.

The element of earthquakes was a matter of serious discussion in the construction of the lock-type of canal on the Isthmus, but sound judgment and experience of the engineers in the construction of large earthworks demonstrated the distinction between the construction of high buildings or massive structures of any description on unstable grounds.

In a report to the United States Canal Board in 1895 Professor H. Ritter, resident of Costa Rica, and noted scientist in the study of seismic disturbances, said in part as follows:

Considered by themselves only, earthquakes cannot in my opinion be taken as a serious obstacle to the building of canals or railways in these countries. But it is not so when they occur in connection with the copious rains which characterize our climate. In itself the rain is a dangerous element, which penetrates the soil, loosens the clay or argillaceous strata, and very often produces considerable landslides. The soil may be soaked

with water without giving way, but a sudden seismic shock can easily bring on a catastrophe. However, the general topography of the Zone crossed by the western division of the canal, as far as my knowledge of the region allows me to state, does not seem to admit the possibility of easy movements of the superficial strata.

Records show that damage by earthquake has invariably been aboveground, rather than in the self-contained—as instanced by railroad tunnels, aqueducts, dams fortifications, canals and the like, which have rarely been disturbed by earthquakes.

The efficient corps of engineers now in charge of canal construction on the Isthmus warrants the confidence of the American people to the extent that the work is being performed consistent with the importance and magnitude of the enterprise, and, excepting extreme convulsions of nature, the Isthmian canal will remain an everlasting monument to American enterprise, ability and ingenuity.

The Dredgemaster.

Laurent Roquebert, general foreman of dredging at La Boca, has been a dredgeman at the Pacific entrance to the Canal for twenty years or more, in fact since the time of the old French company. While at his work in the evening of March 29, he was crushed between two clapnets, and now is critically ill in Ancon hospital. Two days after the resident engineer at La Boca went to see him and was greeted with the question "How many yards?" He referred to the amount of dredging that had been done in March, and when told that all records had been broken, he asked:

"And the Gopher, what did she do?"

The Gopher, like the dredgemaster, is a heritage from the French. It is a sea-going Scotch ladder dredge that has been at work at La Boca almost constantly for twenty-five years. Roquebert was at one time the master on this dredge, and his confidence that it was the best worker in canal excavation was unshaken until October, 1908, when dredge No. 1, of the Colon fleet took the record.

In answer to the question, "And the Gopher, what did she do?" he was told, "She holds the record by over 3,000 yards."

The dredgemaster closed his eyes, sighed in satisfaction, and said: "I am so happy."

THE NORTH POLE.

DR. FREDERICK A. COOK.

The world anxiously waits verification and detailed accounts from Dr. Frederick A. Cook of Brooklyn of his researches in the North Polar regions. The high standing of Dr. Cook warrants the belief that his achievement is bona fide, and very little doubt surrounds the meager news thus far received.

The voyage which resulted in the discovery of the North Pole was ostensibly one for pleasure, and possibly void of the necessary equipment for scientific observations. However, scientists claim that with the ordinary apparatus carried by an extensive hunting expedition sufficient data and records could be obtained to prove conclusively the statements of Dr. Cook.

Some disappointment to the world may result when a full and complete account of Dr. Cook's expedition is authenticated; none the less glorious, however, is the tribute paid to American enterprise and daring as evidenced in the news thus far received from Dr. Cook.

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EDITORIAL.

It can be asserted that there is not a prominent fact in the history of the Pacific Coast States that is unknown to the people of the world. The vast amount of energy expended in exploiting the resources of Washington, Oregon and California, is hardly exceeded in value by the \$1,500,000,000 gold production of California since Marshal's discovery in January, 1848. In the latter event the news traveled with more effective rapidity than modern science has conceived. To what extent can we attribute the wonderful progress achieved by exploitation, compared to the guide posts which line the beaten path towards the setting sun? One is a moral fact arising from the minds of men; the other, material, arising from the course of events. It would be most unjust not to acknowledge every honorable and sincere effort to acquaint the world with our resources, particularly so in the cases of Civic organizations, which have been eminently successful in doing so. But are we cutting coupons from this investment? Has the means justified the end? Are the energies of our Civic organizations and citizens being expended in the right direction while engaged in telling the world of the wonderful resources of the Pacific Coast.

By the means just mentioned we have become inseparably identified with the whole commercial world, the base upon which our commercial industrial strength is now resting. No single state in the Union, or combination of three states, can lay claim to independent commercial or agricultural existence to the same extent as California, Oregon and Washington, each of which owes their escape from mediocrity to individual resources distinctly western, and which has been made manifest by signs not to be mistaken. As all roads once led to Rome, so now, do all roads seek a terminal on the Pacific. It is safe to assume that the

smallest railroad in the United States or contiguous territory, has direct or indirect communication with Pacific Coast ports, and to some extent derives a revenue from the connection. The cost of every marine improvement made in the world for the past forty years has figured the percentage of the cost of such improvement that will accrue from Pacific Coast traffic. For over thirty years the people of the United States have been interested in the construction of a canal on the Isthmus, by which to reach the western shores of America.

One section of the United States has passed from agricultural to manufacturing pursuits and used the resultant wealth to develop an industrial system of which the nation may justly be proud. Natural conditions had immeasurable effect in the development of eastern manufacturing industries. Each change in the development of the Eastern States has required a corresponding change in economic conditions. Transportation facilities must be provided to carry the bulk of raw materials and manufactured articles to the various markets; concentration of wealth to build railroads and factories was obviously necessary and successfully accomplished, the result of which has been to profoundly affect all that section of the United States west of the Rocky mountains. At the opening, during the progress, and for several years following the close of the Spanish-American War, the United States made rapid progress in its material industries. The figures of the census of 1900 are too well known to repeat and not germane to this article. Suffice to say that each state in the Union enjoyed a substantial increase in population for the previous ten years, but the census also revealed the remarkable increase of the unsettled area of all the states west of the line of the Great Plains, and included without exception all the Pacific Coast States. It will thus be seen that agriculture in the Western States was seriously affected. From 1790 to 1900 the center of population of the United States was gradually moving westward; moving from a point 23 miles east of Baltimore, Md., in 1790 to a point six miles southeast of Columbus, Ind., in 1900, leaving traveled a distance westward of 529 miles and at present occupying a point in Indiana midway between the Atlantic Coast and the eastern boundary line of the Great Plains, a further demonstration of the fact that Western States were not benefited by the increased population of the United States as a whole.

At the close of the year 1907, continental United States owned and operated almost one-half of the total railroad mileage of the world, as shown by the following figures:

Countries—	Railroad mileage.
Continental United States	236,949
Europe (entire continent)	197,381
North and South America (exclusive of the United States)	74,732
Asia (entire)	55,367
Africa	20,091
Australia and Oceania	18,321
Total	602,841

One-third of the land area of continental United States is west of the Rocky mountains.

Fifteen-sixteenths of the population of continental United States is east of the Rocky mountains.

In the ten years from 1897 to 1907, the United States built 44,170.50 miles of railroad. Thirteen per cent of which (5,753 miles) was built west of the Rocky mountains.

On June 30, 1907, 20,552.87 miles (8.6 per cent) of

the total railroad mileage of the United States was west of the Rocky mountains.

For the year ending June 30, 1907, the gross earnings of the railroads from operations in the United States was \$2,589,005,578. The surplus accruing from operations was \$141,323,264. For the same period of time the gross earnings from the railroads west of the Rocky mountains was \$112,735,322, and the surplus \$30,521,369.

A brief summary of these figures will again show a depreciating effect on Pacific Coast resources: Six and one-quarter per cent of the population of the United States, occupying 33 1-3 per cent of its land area, served by 8.6 per cent of total railroad mileage, have contributed 21.5 per cent of the surplus revenue from operations of the railroads of the United States.

Conceding the importance of railroad development in the industrial prosperity of the United States. That section of the country situated west of the Rocky mountains may be reasonably excused from any demonstration of gratitude to the railroads. Prudence may supply a remedy for present grievances, and judgment correct the mistakes of the past, but we have been taught by long experience that we cannot expect either remedy or correction from the railroads.

Silenced by these experiences, natural resources and the upbuilding of commerce remain the inalienable source of relief, and past, present or future, await development by a policy constructed on system, at no time permitting the encouragement of an industry to pass unnoticed. The past ten years of Pacific Coast history will disclose an era of growth, accomplished only by enterprise and fixed principles new to western life. The next decade will witness corresponding advance under the authority of closer relationship and due recognition of common interests of the Pacific Coast states.

NOTES OF PACIFIC COAST.

Port of San Francisco.

Old Case Against the Pacific Mail Steamship Company to Be Tried.—The suit of Andrew Furuseth to recover \$205,000 from the Pacific Mail Steamship Company, has been set for trial on September 27th. The suit is brought for the violation of the Federal laws prohibiting any person or firm from making a contract with an alien to come to this country to accept employment. The punishment is a fine of \$1000 in each case.

It is alleged in the action that at the time the Manchuria was brought out from the East in 1904 a Chinese crew, consisting of 205 men, was contracted for in China and they were brought to San Francisco on the steamer Siberia.

Freighter San Mateo Sold.—The steamer San Mateo, which was recently chartered to load general cargo for New York by Bates & Chesebrough, has been purchased by Eastern parties and will probably not return to this coast. The steamer has been engaged, for the past three months, in the Nome trade from Seattle and upon completion of her present trip she will immediately load for the East.

The San Mateo, although a British built steamer, obtained American registry at the time the Hawaiian Islands came under the jurisdiction of the United States. She was built at Shields, England, in 1888, and was named the Charter Towers. She was purchased by Americans and given Hawaiian registry.

New York Merchants Will Cut into the Trade of San Francisco.—It is reported that New York merchants will seek to derive some benefit from the Philippine tariff by the establishment of a direct steamship line between New York and Manila.

Steamer Seminole Libeled.—For the alleged shortage of 15,806 pounds of gambier, which was part of the Seminole's cargo on the trip from Hongkong to San Francisco, just completed, S. L. Jones & Co. have filed action against the steamer for \$948.30 damages. Negligent storage was alleged to be responsible for a shortage of 15,806 pounds out of 179,200.

Eleven vessels now comprise the Clipper fleet.—Bates & Chesebrough have chartered the four master steel ship John Erna from A. P. Lorentzen, and she will go in berth at Philadelphia, September 15th. The John Erna is of 5,000 tons and a full cargo has been engaged for her westward trip.

The ship Astral of the Clipper line is in berth loading for New York. The ship William P. Frye sailed August 21st from New York for San Francisco and the Manga Reva will follow.

Pacific Coast Steamship Company Joins Transcontinental Passenger Association.—The Transcontinental Passenger Association has admitted to membership the Pacific Coast Steamship Company. The company will now be able to issue transcontinental transportation to every part of the country and by any route after the passenger has reached his destination over the water route. The interstate commerce commission will in future govern the company's passenger tariff arrangements.

Missionary Schooner Built in San Francisco Lost in Sydney.—The missionary schooner Hiram Bingham, word of whose loss was received at Boston in a cablegram from Sydney, was built at Anderson's shipyard near Hunters point and sailed from here November 10, 1908, on its maiden voyage. The message conveying news of the loss of the vessel also told of the death of Captain Alfred C. Walkup, the mariner-missionary who commanded the gospel ship. Captain Walkup superintended the construction of the vessel.

The Hiram Bingham was built by the American board of foreign missions for work among the Gilbert islanders and cost \$7,000. The vessel was 63 feet long and was equipped with a 45 horsepower gasoline engine.

New Transportation Company on Coast Trade.—A transportation company, to operate between California and Oregon waters, has filed articles of incorporation with the secretary of state under the title of the Oregon Transportation company. The capitalization of the company is given as \$75,000, with its objects to build and operate ocean vessels, construct docks and other facilities for shipping. The company will also accommodate passenger traffic.

The stockholders are R. H. Morrow, T. W. Klingenberg, C. L. Cadwalader, Thomas B. Leeper and Carl Westfield, all of San Francisco.

Seattle.

British Bark Zinita Arrived August 20th, 205 days Out.—After going through one of the most trying experiences ever accorded him, Captain J. H. Spivey, of the British bark Zinita, finally brought his ship safely into port 279 days out from Newcastle-on-Tyne. Twice compelled to return to her port of leave for repairs, the ship started for Seattle on January 24th of last year. From the time of leaving until her arrival at Seattle on August 20th it was one continual battle with the elements.

When off the river Platte, in the South Atlantic, the weather conditions became so dangerous that it was found necessary to jettison 100 tons of fire-bricks, which had broken loose from the their lashings, and threatened eventually to break the ship up. The last stretch of the journey, the passage from off Pitcairn island to Cape Flattery, was made in forty-five days.

An inspection of the bark upon arrival discloses that extensive repairs must be made before the *Zinita* is again able to put to sea. The injuries beyond frayed and badly worn canvas consist of the foreyard badly sprung, the mainyard shattered so that it was made servicable only by splicing, and innumerable lesser damaged parts.

With a registered tonnage of 1,525, the *Zinita* is owned and operated by Lang & Fulton, of Greenock, and has made previous visits to Puget Sound. The bark was built in 1894, and as recalled by marine men, has never been fortunate in turning up any speed records. Petty officers of the vessel recite that on her last visit to the Pacific, a passage of 199 days from Glasgow to Portland, which is not a creditable showing, was rated as fair for the *Zinita*.

The *Zinita* was posted at 20 per cent for reinsurance.

Mexico Will Soon Raise Tariff on Wheat.—The first new crop wheat cargo to be shipped from Puget Sound was taken by German steamer *Erna* on September 15th. Mexico will increase the duty on wheat by one-half cent (gold) a pound and it was planned to get a full cargo down by the *Erna*, which will leave on September 8th. The increase was taken at the instance of the Mexican farmers who complained of the competition of the wheat from the United States.

It is thought that the tariff will be reduced before the end of the year as the Mexican crop is harvested earlier than in this country. The amount raised is insufficient for home consumption and when the shortage is felt the duty will probably be lowered. In the meantime not much grain will likely go south, but during the winter and early spring exports of wheat to Mexico will be exceptionally heavy.

Japanese steamer Tacoma Maru Secures Accommodations at Government Dock.—Unable to secure other accommodations on Puget Sound or in British Columbia, and wishing to depart on schedule, the United States government extended an unusual courtesy to the Japanese by allowing the steamer *Tacoma Maru* to use the dry dock at the Puget Sound navy yard.

While returning on her round trip to Japan the *Tacoma Maru* ran into some wreckage which played havoc with both of her screws. The Stefferman Engine Works of Seattle was awarded the contract for repairs.

"All the neighboring docks were filled," said Senator Piles, "otherwise, I doubt if permission could have been granted to the Japanese liner to dock in the navy yard, Puget Sound. We examined into the situation carefully and found that even in British Columbia no docks were vacant, and a courtesy has been extended to the Japanese which, I am sure, they would grant to us if conditions were reversed.

"It is the policy of the government to treat kindly every foreign vessel, and to set a nice precedent, which I am certain, would be followed by them if circumstances would necessitate similar favors to American shipping."

Steamer Minnesota Carries Valuable Cargo.—Carrying what is probably the most valuable cargo ever trans-

ported across the Pacific the Great Northern Steamship Company steamer *Minnesota* arrived at Seattle on September 1st. The value of the cargo is appraised at \$4,000,000 and includes 3,000 bales of raw silk, 60,000 chests of tea and 15,000 bales of Manila hemp. A Japanese contingent, representing commercial bodies of Japan, were passengers on the liner.

Steamer St. Croix May Be Placed on San Francisco-San Pedro Route.—The steamer *St. Croix*, which was recently purchased in the East by the Schuback-Hamilton Steamship Company, and brought to this coast via the Horn, has been taken off the excursion run to Nome and it is thought probable that she will be placed on the San Pedro run out of San Francisco. As the run to Nome was only temporary, shipping circles on the coast have been waiting for some time for the announcement of her final disposal.

The *St. Croix* is now at the Moran shipyard having oil burning apparatus installed. The steamer will probably make one more trip to Nome this season before her new route is announced.

If the *St. Croix* is operated south of San Francisco she may run in connection with the steamer *Hanalei*, now on that route, and in that event it is probable that some traffic arrangement will be made with one of the companies giving service between San Francisco and Puget Sound. C. H. Hamilton, one of the owners of the *St. Croix*, is now on the way to San Francisco to see what plans can be matured for a route along the California coast.

Steamer Portland Placed on the Ohio's Run.—The steamer *Portland* of the Alaska Coast Company will sail for Cordova on September with the passengers and freight which was waiting for the *Ohio*.

The steamship *Santa Clara*, which has been idle for three months, sailed August 30th for Cordova and Copper river ports with the passengers from the *Ohio*. These passengers were brought to Seattle on the steamer *Rupert City*. The *Santa Clara* will call at Juneau and pick up the survivors landed there from the wreck by the steamer *Humboldt*. The steamer *Yucatan*, which is now in Bering sea with the G. W. Perkins party, will be renovated for the Valdez run, and will operate in conjunction with the Northwestern and the *Santa Clara*.

Label Suit Filed Against the British Ship Poltalloch.—Petek & Co., have filed a suit in admiralty in the United States District Court against the British ship *Poltalloch* to recover, as assignee, alleged damages on consignments from Antwerp to San Francisco. The total amount sued for is \$774.12, and comprises \$712.08 on a shipment of thirty-seven cases of oxalic crystals and \$62.04 on marble slabs, forty barrels of ochre and twenty-five barrels of Umea tar. The damage is alleged to have been caused by faulty stowage through negligence of the master and owners of the *Poltalloch*.

Lloyd's Sue for Misrepresentation.—Alleging that for two years the defendants have been misrepresenting themselves as the authorized agents for the plaintiff, Lloyd's of London, through Attorneys Loveday, Kelly & McMillan of Tacoma yesterday began an action in the Federal Court for a restraining order against W. W. H. Cooper & Co., and John Doe and Richard Roe, 1158 Empire building, asking that they be enjoined from using the name of Lloyd's in their business. An order to show cause will be heard at 10 a. m. Wednesday.

The plaintiff alleges that the defendants have secured

a large amount of marine insurance on the representation that they were acting as agents for the plaintiff, and that losses have not been paid. "As a result," declare the petitioners, "we and our members have suffered in reputation and business. Because of the conditions of marine insurance it is necessary that shippers be assured that the agents represent the companies claimed, and the defendants are perpetrating a fraud on the plaintiff, its members and shippers by sea from Seattle as well as other ports."

The Puget Sound Brokerage Co., at 1158 Empire building, has taken over the business of Cooper & Co., but, according to Attorney W. R. Bell, counsel for the defendants, has nothing to do with past business. "Lloyd's, a corporation and collector of marine intelligence," he said, "has brought this action, and it is not in court, because any one of the 700 members of the underwriters' department of Lloyd may appoint agent at will, and we claim to be able to show ample authority for doing business for them."

Portland.

Will Use Barge to Transport Grain on River.—Directors of the Open River Transportation Company decided recently to try the new plan of transporting wheat by barge down the Columbia river from the Inland Empire to Celilo. One wheat barge, the use of which will be watched as an interesting experiment, has been ordered built at once at Celilo. This barge will be 90 feet long by 30 beam, and will have a capacity of 200 tons of wheat, which is as great as that of the ordinary light draught steamboat in these waters.

This barge will be towed with its load of wheat between Kennewick or Pasco and Celilo by the steamer Twin Cities or Inland Empire. As the steamer will also be loaded to its full capacity, the addition of the barge, if it is found that it can be managed in those swift waters, will about double the amount of wheat that can be transported on one trip. The barge will draw only three feet, which is light enough to enable it to be kept in commission during even the lowest stages of the river.

If the barge method proves successful, it will go far toward solving the transportation problem in the rush months and additional barges will be built at once. When the wheat season is in full swing, it is almost more than the two steamers can do to handle all the traffic on the upper river unaided.

Tug Kern Lies in 60 Feet of Water.—A misunderstanding of signals was responsible for a collision at 12:50 between the passenger steamer Geo. W. Elder and the steamer Daniel Kern and as a result the latter vessel is sunk in 60 feet of water about 500 feet off Waterford Light in the Columbia river, 35 miles east of here, and about a mile above where the same vessel was wrecked some years ago, when she was the lighthouse tender Manzanita.

The Elder was en route down the river under the command of the pilot, W. H. Patterson. When nearing Waterford lights were sighted ahead, where the steamers Kern and Hercules were exchanging tows or rock barges, Captain Patterson immediately blew one whistle as a signal for passing, but, hearing no response, he repeated the signal and then heard two whistles at short intervals, and, believing the Daniel Kern was crossing the bow, continued on his course under a slow bell.

Seeing, however, that a collision was imminent, he

gave orders for "full speed astern" and when the crash came, the Elder's engines were backing. The Elder struck the Kern with her starboard bow on the port quarter about 30 feet from the stern, breaking her propeller and smashing a hole in her side, so that she sank within 20 minutes until only the tops of her masts were above water. The crew from the Kern escaped onto one of the rock barges lying alongside, so that no one was injured and no lives were lost, but the members of the crew lost all their personal effects.

In his wreck report Captain Copeland gives as the cause of the accident, "carelessness of the pilot on the Geo. W. Elder." Pilot Patterson declined to make any statement for publication, other than to say he did all he could to avoid the accident.

How seriously the Daniel Kern is damaged is, of course, not known but her officers believe she can be raised and estimate the damage at \$5000. She is lying directly across the main channel, which at that point is about 400 feet wide and her masts extend about ten feet out of water, making a serious menace to navigation.

Representatives of the Firemen's Fund Insurance Company, which holds a risk on the tug Daniel Kern, which was sunk in lower Columbia river last week in collision with the steamer Geo. W. Elder, are making arrangements to raise the vessel. The tug lies in 64 feet of water, and bids have been made to the underwriters to raise it for \$10,000. They believe the work can be done for one-third that sum. The tug is said to be worth \$50,000, new boilers having recently been installed.

The Portland and Asiatic Steamship Company Will Resume Old Schedule.—It is planned by the Portland and Asiatic Steamship Company to resume the old schedule between Portland and the Orient in October. This will allow for a sailing every day and the Norwegian steamer Hercules will be the first to leave Portland.

The Price Shipyard at Bandon to Be Sold.—The Price shipyard at Bandon, one of the best shipbuilding plants on the southern Oregon coast, is to be sold. It is understood that there are a number of bidders, one of whom is a firm holding contracts for the construction of several vessels.

Port of Portland Pilotage Service Offers Inducement.—The Port of Portland Commission decided to grant a reduction of 25 per cent from the usual pilotage charges for the service of piloting steamships in and out of the river that operate out of here regularly. All other lines having 12 steamers going out of here a year will be given benefit of the reduction. But in order to receive the benefit of these rates it is stipulated that the owners must employ pilots in the employ of the Port of Portland.

Victoria, B. C.

Canadian Pacific Railroad Will Sell Steamer Amur.—Representatives of a South American shipping company are negotiating for the purchase of the Canadian Pacific Railroad's steamer Amur. The purchase price is said to be \$60,000.

During the Klondike rush in 1899 a coal company purchased the Amur for \$17,000. By the time the steamer was ready to operate in the trade the rush was over, and the company being financially embarrassed sold the Amur to the Canadian Pacific. The Amur was built in 1890 at Sunderland for the Baltic fruit trade.

The Canadian Pacific will replace the Amur with a vessel owned by the Union Steamship Company of New Zealand.

Fire on Steamer Puritan Does Slight Damage.—A fire which occurred on board the British steamer Puritan caused damages to the amount of \$600. The steamer is being repaired at the British Columbia Marine Railway Company and it is thought that the fire was started by a heated plate in the side of the vessel. The Puritan was badly damaged in the ice floes of Bering Sea on a recent trip.

Australian Mail Line to Inaugurate New Service.—

It is understood that the Australian Mail Line will inaugurate a new freight and passenger service between Vancouver and ports of New Zealand and Australia. It is generally believed that the new line will receive a subsidy from the British government. The steamers will ply regularly from the sound, making Vancouver their sound terminus. When cargo offers, the steamers will call at this and other sound ports.

Heavy Duty Collected on New Material from Seattle.—A heavy duty was levied on a new boiler built at Seattle and other repairs done on the Puget Sound Tugboat Company's tug Lorne, which is registered at this port. The tax amounted to \$5000 in all.

Nome.

U. S. Revenue Cutter Thetis Rendering Valuable Aid to Bering Sea Shipping.—Acknowledging the valuable assistance given to shipping in Bering sea this season, the vice president of the John J. Seson Company, of Nome, has written to the secretary of the treasury commending the work of the revenue cutter Thetis, Capt. A. J. Henderson, in aiding the British collier Puritan. He says:

"We beg to call your attention to the great service rendered shipping interests in Bering sea this season by the U. S. revenue cutter Thetis, Capt. A. J. Henderson commanding.

"The John J. Seson Company was the charterer of the British S. S. Puritan, loaded out of Ladysmith, British Columbia, July 14, 1909, with 5,500 tons of coal, consigned to points on Seward peninsula. On June 25 the Puritan stove both bows in the heavy ice floes and filled her fore peak. On June 27 she lost all the blades of her propeller, being then in the midst of an immense field of ice about thirty miles south of Nome.

"July 2 the Thetis found the Puritan in the ice, but was unable to speak her, but on returning to Nome reported the fact to this company. July 4 the Thetis returned to the ice field, but was unable to get nearer than four miles to the Puritan, standing by until the 5th, when she returned to Nome and advised us. July 8 the Thetis was advised that the Puritan was in trouble and left again for the ice field. At 2:25 p. m. we received the following message:

"Thetis is with steamer Puritan, working slowly through ice. Puritan has damaged propeller and port bow stove."

"At 4:35 a. m., July 9, the Puritan anchored in Nome roadstead, having been towed to port by the Thetis.

"The value of vessel and cargo is not less than \$225,000, and there is little doubt the loss would have been complete without assistance. She was helpless.

"We have cited this case in detail in order to show the absolute merit of the service rendered. This is the most serious case this season, but there have been numerous instances where the Thetis has stood by ready to help if necessary. We trust the department will continue the service, otherwise there will undoubtedly, as the years go by, be serious loss of life and property.

"In closing we cannot refrain from commending the zeal of Capt. A. J. Henderson. If he were working for a large salvage prize, his energy could not be greater. The shipping people have found his advice and experience of inestimable value and always disinterested."

Upon completing their work as members of the Bering sea patrol fleet, the vessels of the revenue cutter service on this coast will be assigned as follows: Thetis, Hawaiian waters, with headquarters at Honolulu; Rush, Alaskan waters, with headquarters at Juneau; Manning, waters of Washington and Oregon, with headquarters at Astoria; Perry, waters of Southern California, with headquarters at San Pedro; Bear, waters of Southern California, with headquarters at San Diego. The McCulloch will remain on her present station, with headquarters at San Francisco.

San Pedro.

Will Give Clipper Line Ship a Fitting Welcome.—

Preparations are being made to give a fitting welcome to the fine clipper ship Edward Sewall, which early next month will sail from New York for San Pedro by way of Cape Horn, with the first cargo ever brought from the Atlantic coast directly to our seaport. She will carry merchandise consigned from New York and Philadelphia to Los Angeles business houses.

Hoquiam.

Record Shipments of Lumber for July.—Five mills of Hoquiam broke the cargo record set by 17 mills of the harbor when during July 27,681,729 feet of lumber, 5,240,400 shingles and 5,398,020 lath were shipped to various ports.

The record made some time ago by shipments of all mills was 28,000,000 feet. With the cargo of the Aberdeen and Cosmopolis plants added to the Hoquiam totals it will bring the figures up to a half billion feet. The National Lumber & Box Company was the banner mill, shipping nearly 12,000,000 feet, with the Hoquiam Lumber & Shingle Company next with more than 8,000,000.

More than 13,000,000 feet went to foreign ports, Mexico and Panama receiving the largest amounts. The presence of large tramp steamers, which are a rare sight on the harbor, is responsible for the wonderful record.

Port Townsend.

U. S. Cutter Tahoma arrives at Port Townsend.—

After completing the longest continuous journey undertaken by the service, the new U. S. cutter Tahoma reached port from Baltimore, by way of the Suez Canal, on August 24th. No orders have been received detailing her for duty, but it is thought that she will remain on the Sound with headquarters at this port.

The Sloop-of-War Iroquois to Be Sold.—With the fulfillment of plans government officers here and at Washington are working out, wreckers or whoever may desire a choice marine relic will have an opportunity to make an offer for purchase of the bulk of the sloop-of-war Iroquois, the hull of which has been a part of the equipment of the United States quarantine service at Diamond Point for many years. Dr. J. H. Oakley, surgeon in charge of quarantine work at this station, has advised the department that the hulk is now unserviceable. Under orders from the department head an inspection was made by Lieut. W. E. W. Hall and Lieut. R. B. Adams, U. S. revenue cutter service. Their report will be transmitted to Washington, and it is intimated that it will advise placing the hull on sale for what it will bring as wreckage.

The hulk of the Iroquois is a fragment of the American navy which in ante-bellum days upheld the glory of the American flag on the seas of the world. She was built in New York in 1858, bark-rigged and with what was for those days a formidable fighting machine, with twenty-six smooth-bore cannon, was in commission with the navy for thirty years. Service of the vessel ended after a long idleness in Port Townsend bay, and in 1893 the hulk was dismantled and lent by the navy to the department of public health and marine hospital service for use as a detention home and fumigation vessel. She was later towed to Discovery bay and anchored off the quarantine station there. With the addition of building quarters on shore, little use for the Iroquois has lately existed, and following her drifting aground near the station in a storm of last winter Dr. Oakley recommended her abandonment and sale.

Built on specifications that made American naval vessels models for sea-worthiness and good sailors, the Iroquois is known to carry heavy values for the wrecker. The hull is copper sheathed and fastened with that metal, the quantity of material used being so large that after more than a half century of service the value is believed to be large for scrap alone.

San Diego.

San Diego Ships First Through Cargo to New York.—

The American Hawaiian Steamship Company's freight steamer Riverside carried on her last trip south, 175 tons of San Diego county merchandise to Salina Cruz for delivery on the Atlantic coast. The shipment consisted of 2000 cases of honey and miscellaneous merchandise.

Shipment by Water Between San Diego and Tehautepec Quicker Than by Rail.—In the report of Herbert Knox Smith, commissioner of corporations, on transportation by water in the United States, just issued, a copy of which has been received by the Chamber of Commerce, the following with reference to the liners plying between this port and the Isthmus of Tehautepec, appears:

"In February, 1907, the first of the great liners of the American-Hawaiian Steamship Co. reached San Diego from Salina Cruz. Since that date the arrival of vessels of this company have been regular. The company has purchased additional ships to handle the traffic, and now that this great ocean highway of commerce is being traversed and it has been demonstrated that shipments can be made from New York City as quickly as by rail, and during traffic congestion or car shortage, the goods are received much more quickly by this route, merchants are ordering their goods shipped by way of Tehautepec. This applies not only to the merchants of San Diego, but those of Los Angeles, New Mexico and Arizona points. This, in itself, means a large increase in the number of vessels to arrive at this port.

"Lumber shipments for inland points are being brought here and sent north by rail."

Eureka.

Steamer Willesden Largest Vessel Ever in Port.—

The British tramp steamer Willesden, which is now in Humboldt bay to load 2,000,000 ft. of redwood lumber, has the distinction of being the largest vessel which ever entered Humboldt Bay. Next to the Willesden the largest ship that has so far been in Humboldt bay is the British steamer Clan MacMillan, 4121 tons. The tramp steamer Sakkarah was 3928 tons and the Norwegian Henrik Ibsen, 3741 tons.

The Willesden is 400 feet long, 52 feet beam and 28 feet depth of hold. Her gross tonnage is 6036.42. She is built according to plans much the same as those followed in the construction of most of the freighters which have visited Humboldt bay in the past, only her size brings these plans out more plainly. She is equipped with triple expansion engines which give her a speed of ten knots, and enable her to make the through voyage to this port from Guaymas, Mexico in nine days.

Tacoma.

New Orient Line Will Probably Be Established.—

Jebsen & Ostrander, it is reported, will, when the traffic has increased sufficiently to warrant, reestablish a freight steamer service between Tacoma and the Orient. This service was withdrawn when Oriental trade fell out.

Osaka Shosen Kaisha Lines to Be Equipped With

Wireless.—The six big steamers designed by the Osaka Shosen Kaisha especially for its Tacoma-Oriental service will probably be the first of the trans-Pacific freighters to be equipped with wireless apparatus. According to local representatives of the company, arrangements for the improvement are now being made and it is possible the entire fleet will be outfitted with the best type of wireless instruments within the next year.

The equipment will be installed by the department of communication of the imperial Japanese government, the telegraph and telephone business of Japan being a government monopoly. Recent advices from Tokyo state that the department has just perfected an entirely new apparatus, said to be in many ways superior to the systems now in commercial use, and known, according to a free translation, as the Department of Communication Wireless system. The government installs the apparatus on each steamer and maintains an operator on board who is responsible for all messages handled. The wireless is said to be coming into wide use among Japanese merchantmen and, owing to the fact that the government has direct control and supervision of the business, the service is said to be of a most superior character.

The Steamer Bandon Not a Total Loss.—The steamer Bandon, owned by A. F. Estabrook & Co. of San Francisco has been taken off the bar at Coquille river, which she struck on August 31, while being towed out of the Coquille river, and is now alongside a wharf at Bandon. The steamer is waterlogged, and a large part of her deck load is gone.

SHIPBUILDING NOTES.

The Union Iron Works.

Overhauled and cleaned two high-pressure liners for main engines on the steamship Mexican.

The Standard Oil barge No. 3 was at the works for general repairs.

The steamers San Pedro and Fairhaven were placed on the dry dock for hull repairs and painting.

The steamers Missourian and Nebraskan had deck machinery, main engines, auxiliary machinery and main and donkey boilers overhauled. Considerable hull work was done on both steamers.

The steamers Lansing and China were at the works for engine, boiler and hull repairs.

Two manganese bronze propellers were made and fitted on the steamer Queen.

The steamers San Juan and Roma received engine, boiler and hull repairs.

The steamer Rosecrans received engine, boiler and hull repairs; also fitted with new condenser tubes.

The British steamer Winnebago is on the dry dock to receive engine, boiler and hull repairs. A new ventilating system for naphtha tanks was installed.

The steamer Manchuria was at the works for engine, boiler and hull repairs.

The steamship State of California was on the dry dock for painting. Two blades of the wheel were changed, and several zincs renewed around stem.

The new British Union Oil steamer Piclan is at the works for engine, boiler and hull repairs.

The steamer Rose City is on the dry dock for general repairs.

The pontoon for the Birmingham Navy Yard left in tow of the tug Hercules on August 23d.

The Union has changed the old Agate in to a barge, and she will be placed on the run between San Francisco and Drake's Bay. The barge will be towed up and down the coast with gravel.

Moore & Scott Iron Works.

The Western Pacific ferry steamer Telephone is undergoing extensive repairs to her machinery and alterations to her passenger accommodations. Tanks are also being installed, and the vessel will be converted into an oil burner. The Telephone, which was recently purchased on the Sound by the Western Pacific Company, is accredited with a speed of twenty-two knots per hour. The trial trip of the vessel on this bay, when the repairs are completed, will be watched with interest.

The steamer Noyo is laid up at the yard receiving extensive repairs to her boilers.

The launch Bonnie Doon, owned by William Letts Oliver of Oakland, and the yacht Martha, owned by J. R. Hanify, were on the ways for cleaning and painting and minor repairs.

The fitting up of the refrigerating chamber on the U. S. A. T. Logan is finished and has been tested out and the work done by the Moore & Scott Iron Works has been highly satisfactory in every respect.

The work is progressing on the Rufus E. Wood, and this vessel will be a full fledged coal hulk within a few days.

This firm has just completed and shipped a very powerful logging engine for the L. E. White Lumber Company, to be used for their work.

Portland Concern Gets Tugboat Contract.—The Willamette Iron & Steel Works was awarded the contract for the construction of a steel hull tug for the Port of Portland Commission. The tug, when completed, will be stationed at the mouth of the Columbia. The Moran Company of Seattle submitted a bid of \$98,700, while that of the Portland Company was \$92,350.

The new tug will be 116 feet long, 25 feet beam and 15 feet depth of hold. She will be built on the same general lines as the Wallula, but considerably larger—17 feet longer and much more powerful. The work of constructing her will be started immediately. She will be completed toward the end of the present shipping season. The tug is expected to be one of the best of her type on the Pacific Coast.

Loop Lumber Company May Replace R. D. Inman With New Steamer.—A report has been circulated that the

Loop Lumber Company of San Francisco intends to replace the lost R. D. Inman with a new vessel.

Work on the New Steamer Klamath Nearly Completed.

The construction work on the new steamer Klamath, which is being built at Eureka for McCormack & Company of San Francisco is fast nearing completion and within about one month it is expected that the Klamath will be ready for launching.

New U. S. Army Tug Captain Gregory Barrett Arrives at San Francisco.—The new United States Army tug Captain Gregory Barrett, which will be used on the San Francisco Bay, arrived from Portland, making the run down the coast in seventy-one hours. The craft will probably be used as an auxiliary to the mine planter General Armistead, or in transporting troops and visitors among the different army posts about the bay.

The Captain Barrett was recently launched at the Willamette Iron and Steel Works at Portland, and is a trim looking craft. She is of steel, 98 feet long, 22 feet beam and 8 feet deep. She came down in command of Captain Blaine, who it is said will be succeeded by Captain Paul.

Two More Boats to Be Built to Run from San Francisco to River Points.—The California Transportation Company will in the near future let contracts for the construction of two steamers to a San Francisco firm. The cost of each is to be \$125,000. Within a year they will be running up and down the river, alternating in the carrying business with the Pride of the River and the Captain Webber, the queen of the company's present fleet.

For the large sum involved the California Transportation Company expects to place two floating palaces on the river waters. The orders are that they must excel in beauty and comfort the famous steamers of the Hudson river, which means, of course, that they will certainly be things of beauty. What their names are to be is yet a secret kept screwed in the lockers of the steamer men's minds.

Besides being larger, top and bottom and lengthwise, than the Pride or the Webber, the newer boats will contain some innovations that will be an advance on present steamer accommodations. The most important change will be in the matter of automobile room. This will be on the lower deck, where there will be plenty of storage room.

The idea is to cater to the automobile traffic that is constantly increasing. Automobile owners setting out from San Francisco for the scenic points of the State have formed the habit of coming to Sacramento via steamer and starting from there. Sometimes there are more machines than can be comfortably handled, and the owners must suffer disappointment. With proper arrangements on the new steamers this fault will be overcome.

On the upper decks there will be spacious dining and smoking rooms, sleeping accommodations for a great number and all the comforts of home.

The New Southern Pacific Ferry on Trial Trip.—The new steamer Navajo, which was constructed at the Southern Pacific ship-building yard on Oakland creek, was brought over to the San Francisco side of the bay under her own steam, and while on this side of the bay will receive the furniture for the staterooms and saloons. The Navajo has been furnished throughout in the old mission style, and its passenger quarters are both attractive and comfortable. The Navajo is about 30 feet longer than the Apache and Modoc, the steamers now on the run, and is faster than either of them. The Navajo will be placed

on the run between here and Sacramento in about a week.

A \$60,000 Steamer to Be Built for Long Beach Company.—Officials and stockholders of the Nelson Navigation Company of Long Beach, which recently disposed of its only large passenger vessel, is planning for the building of a \$60,000 passenger vessel that for accommodations, safety and speed will be second to none in the Southern California coastwise trade.

President H. S. Callahan of the company made the announcement of the purpose. The statement that the company would soon build a stately, roomy steamer, which should have twice the carrying capacity of the "City of Long Beach," followed the assertion that the passenger trade from Long Beach had assumed large proportions recently, and that a boat was in great demand.

It is stated that officials of the company have been figuring with the Craig Shipbuilding Company on the building of the boat. The new steamer will be built of steel, with berths for 150 persons, dining saloon and luxurious cabins. She will have a berth on the Long Beach inner harbor, and will run from that place to San Diego, Portuguese Bend and other points.

THE NEW STEAMER FOR THE MONTICELLO STEAMSHIP COMPANY.

Steadily and conservatively the Monticello Steamship Company has grown along with the trade to Vallejo and from there on up the Napa Valley. Messrs. Hatch Bros. have, with their conservative management, gradually ingratiated themselves into the business affairs of the people so that their popularity alone would be enough to carry them over a rough shoal in the business world. Time and time again competition has tried to crowd in on their business, only to find that the margin of profit was too small and the service too good to make inroads upon.

To meet the increased business the company has ordered a new vessel from the Union Iron Works, which is to cost about \$300,000.

She is of the following dimensions: Length over all, 240 feet; length between perpendiculars, 230 feet; beam over guards, 49 feet; beam at main deck, 45 feet; beam moulded at 9-foot 9-inch water line, 38 feet; depth moulded amidship, 16 feet; draft, 9 feet 9 inches; displacement at 9 feet 9 inches, 1,000 tons.

The new boat is of straight stem, elliptical stern type, with sponson section amidship. The sponson is carried out to the side to form the guard, which is of steel, formed by a facing of 10-inch channel, with the deck plating riveted to the top flange and the sheer stroke riveted to the bottom flange. This reduces the cost somewhat and increases the efficiency over the old wood guard used on the other boats. It is also cheaper to keep in repair if it is properly made.

The propeller well drops below the keel and the skeg supports the lower pintle of the rudder, which is of the regular steamer type.

The hold is divided with 5 watertight bulkheads. The oil tanks, to hold 500 barrels, are in the forward hold, and the water tanks, to hold 8,000 gallons, are on each side of the shaft aft.

A steel orlop deck in the forward hold forms berthing space for part of the crew, and also the bar, barber shop and bootblack stand. The remainder of the crew are berthed on the steel orlop deck aft.

A large space forward on the main deck is arranged

to accommodate fifty tons of freight. The midship part of the main deck is arranged for a smoking room, men's toilet, galley and storeroom. On the after main deck is the dining room, with a stair up to the saloon deck.

The forward and after ends of the saloon deck are open to the weather, with slatted seats all around. The large enclosed saloon occupies an average of about three-fifths of the midship part of this deck, fitted with upholstered day boat seats. The women's toilet and retiring rooms are in the after part of the saloon.

The Texas deck forward is built up with the pilot house, captain's room, mates' rooms and staterooms for passengers. On each side of the deck amidship are the boats railed off. All around are slatted seats.

A domed skylight admits light to the after saloon, and a skylight ventilates the engine room over the engine hatch.

The engine is a four-cylinder, vertical, fore and aft triple-expansion, with cylinders 25-41-48-48, with a common stroke of 24 inches, turning 175 revolutions per minute, delivering 2,600 horsepower. Steam is furnished by four Scotch boilers, 12 feet 3 inches in diameter, and 11 feet long, with three furnaces and 320 tubes, giving in all about 8,000 square feet of heating surface. A speed of twenty miles per hour is expected.

Every effort is being made to make the boat light, substantial and strong, to increase the speed. The joinerwork is to be finished in white, and when completed the new vessel will fill a long-felt want on the run. Her equipment is to be the best of everything, and if prophecies are fulfilled she will be the pride of the north end of the bay. The vessel is designed to carry 2,000 passengers.

WRECK OF THE STEAMSHIP OHIO.

Three hundred and twenty miles from her home port, Seattle, the steamship Ohio went to her doom on Steep Point at the entrance to Keikisle Narrows, south of Ketchikan, Alaska, at 1 o'clock on the morning of Thursday, August 26th. The saddest part of the facts involved in great disasters is the invariable record of the death of one or more of those who unflinchingly faced certain death and remained at their post of duty to assist others. Then does an unappreciative world recognize the true hero and nobility of character of the unfortunate victim; and that manly manliness exists as well beneath jumper and broadcloth. Such was the case in the five unfortunate victims of the Ohio wreck. Wireless Operator George E. Eccles of Seattle, Purser Frederick J. Stephen, Seattle; a quartermaster of the vessel, a soldier and steerage passenger, names unknown.

For several minutes before the vessel struck the reef Operator Eccles was engaged in conversation with the wireless operator at Ketchikan—when suddenly the code letters "C. Q. D." were flashed by the instrument at Ketchikan. Operator Eccles remained at his instrument on the Ohio, sending in detail the striking of the vessel, the exact location by latitude and longitude, the hurried call for assistance, the preparation being made aboard for the safety of the passengers and crew, and occasionally sending word about the vessel that assistance would soon arrive. The last words received at Ketchikan from Eccles was: "Captain and crew going off in the last boat, waiting for me now. Good-by." The good-by proved to be the hero's last farewell.

The prompt action of Eccles and assurance of immediate relief abated the wild confusion which arose when the steamer first struck the rocks. It was while this con-

fusion lasted that Purser Stephens and the quartermaster lost their lives in their efforts to rescue the passengers from the steerage, and shortly after that the soldier and steerage passenger were killed by the upsetting of a boat.

The distress messages were picked up by the wireless instruments of the steamer Humboldt of Eureka, Cal., the steamer Rupert City and the steamer Kingfisher of Juneau, Alaska, all three vessels at the time being on the Alaska Coast at Lynn Circle, in the immediate vicinity of the wreck, and succeeded in the work of rescuing the remaining 215 souls aboard of the ill-fated Ohio. Thirty minutes after striking the rocks the Ohio sank in 12 fathoms of water.

The steamship Ohio was a historic vessel, and one-time popular White Star liner on the Atlantic, having conveyed U. S. Grant from New York to Liverpool upon the commencement of the late President's tour of the world. She was built in Philadelphia in 1877, and was recently purchased by the Alaska Steamship Company for service in the Alaskan trade. Well and comfortably equipped for passenger service, the Ohio was a favorite at all times. She was 3,488 gross and 2,072 net tons, 343 feet in length, 43 feet in breadth and 24 feet 9 inches in depth, with 2,000 indicated horsepower. Was valued at \$300,000, and on the ill-fated voyage carried a passenger list of 128, and 91 officers and crew, and cargo valued at \$50,000. Vessel and cargo are a total loss, with insurance of \$220,000.

The Ohio steamed from Seattle in command of Captain John Johnson Tuesday, August 26th, bound for Valdez and other Alaskan ports. The officers included R. B. Cochran, pilot and mate; E. Stuart, mate; F. J. Stephen, purser; E. Raymond, chief engineer; William Hansen, first assistant engineer; C. Dybdal, second assistant engineer; Elmer R. Tyndall, third assistant engineer; S. Sanders, chief steward; H. Gerstmann, second steward; H. E. Jones, steerage steward; Thomas Marshall, H. Johansen, Albert M. Andersen and H. Johnston, quartermasters, and S. Bradshaw and J. E. Roach, freight clerks. There were 70 first-class and 58 steerage passengers.

The Federal authorities have long since recognized the efficiency of equipment of Pacific Coast vessels, the case of the Ohio and the vessels engaged in the work of rescue being illustrative of the strict observance of every requirement for the safety of passengers and crew of all vessels. As a further illustration, the recent revision of the partly obscured law relating to independent water feeds for boilers was closely observed on the Pacific Coast. In the case of fines levied against owners of motor boats for non-observance of the Federal navigation law for equipment of motor boats, on recommendation of Special Deputy W. B. Hamilton was remitted on the grounds that misinterpretation of the law, rather than intention to evade the same, was very evident.



CONSULAR FEES.

The President has issued an executive order (June 8, 1909, No. 1,083) changing the consular fees prescribed by executive order of August 13, 1906. The new order amends the existing fees in a number of cases. Following are the paragraphs as amended:

No. 3. Extra certificates and declarations as above described, including immigrant's oath (Form No. 128), or declaration for books and household effects under \$100 in value (Form No. 215), where issued without an invoice certificate, each \$1.00.

No. 7. Sealing cars coming from Canada or Mexico, for each manifest in quintuplicate with the consul's certificate, including sealing of each car, vessel, bale, barrel, box or package, \$1.00.

No. 33. Acknowledgment of a deed or power of attorney, or similar service, including one or more signatures, with certificate thereof, for each copy \$2.00.

No. 34. Administering any and all oaths required to be made by pensioners and their witnesses and the execution of their pension vouchers, or by persons presenting claims for pensions or increase of pensions, and their witnesses, or certifying to the competency of a local official before whom the same were executed, No Fee.

No. 40. Copies (carbon copies to be charged for at the same rate as originals).

For the first hundred words or fraction, 50c.

For every additional hundred words or less, 25c.

No. 41. Translations—For every 100 words or fraction, \$1.00.

No. 43. Recording unofficial documents in consulate upon request:

For the first 100 words or fraction, 50c.

For every additional 100 words or less, 25c.

No. 44. Any and all services indicated in the above tariff and performed upon written orders of the Department of State for the official use of the Government of the United States, No fee.

We are in receipt of the annual review number of the "Bulletin of the International Union of the American Republics." Our great surprise in reading the Bulletin was the statement contained therein that the Bureau answers 3,000 legitimate inquiries per month regarding the resources of our sister republics in Latin America. In our opinion the number of inquiries should have included five figures. The remarkable fund of information contained in the monthly bulletin and annual review number is to a great extent responsible for the rapid and wonderful development of the southland republics, an object lesson of the policy advocated by "Pacific Merchant Marine" for the development of the Pacific Coast States of the United States, namely: Concerted and unselfish action on the part of the various representative commercial bodies; to publish to the world a true and exact statement of existing conditions, absolute freedom from petty jealousies and unjust discrimination, and a sincere and effective system for exchange of mutual interests for the common good of all.

The "Bulletin" is concise, admirably written, well illustrated and altogether a worthy representative of pure journalism and the vast interests which it advocates.

The United States Civil Service Commission announces that the following examinations will be held at San Francisco, Cal., in the near future.

Horticulturist (Philippine Service), salary \$1,800 per annum.

Forest assistant (Philippine Service), salary \$1,400 to \$1,600 per annum.

Editor, Bureau of Education, Department of the Interior; salary \$2,000 per annum.

Boiler maker, government printing office, Washington, D. C., 45c per hour.

(The public printer states that the work which the appointee to the position of boiler maker will be required to perform will last about six months.)

For further information concerning these positions address the Secretary, Twelfth Civil Service District, Room 341 Postoffice Building, San Francisco, Cal.



YACHTING SECTION



PLEASURE CRAFTS.



THE Golden Gate Yacht Club is making great preparations for the water carnival to be held at Sausalito on Admission Day. All the clubs about the bay are invited to turn out in full array and participate in the many events. Matches have been arranged for yachts in the 20, 30, 36 and 40-foot classes, and it is expected that some close contests will result. This is the first time in many seasons that the cruising boats have had a chance and a large entry list is expected. There will also be launch races for cruising and speed boats. A special cutter race between the Alert and McCulloch's crews will be a special feature. Swimmers will be given a chance to distinguish themselves and win some handsome prizes. Sculling racers under the auspices of the Pacific Association of Amateur Oarsmen will help to entertain. The celebration will be both night and day, and prizes will be given to the best decorated yachts. The Golden Gate Yacht Club will hold open house, and Commodore Frank Maino promises everyone a good time.

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The schooner Martha, Commander J. R. Hanify, has recently been overhauled and is now spic and span under a new coat of paint.

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George Lowell left on August 28th for an extended cruise up the Sacramento in his sloop Amigo of the San Francisco Yacht Club. He will be gone about three weeks.

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The yachts of the San Francisco and Corinthian clubs took advantage of the moonlight on the night of August 28th and a large fleet sailed from each organization for their scheduled cruise to the Petaluma drawbridge. This cruise is always enjoyable at this time of the season. Earlier in the year San Pablo bay is usually quite rough, and consequently many of the cruises are then more in the nature of a submarine voyage.

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The Neva and Surprise of the San Francisco Club fleet have returned from a week's cruise on the Sacramento.

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San Francisco motor boats have a formidable adversary in a new arrival from Puget Sound. Her name is Paystreak, and she is owned by J. H. Johnson. Paystreak is a 28-footer, and is credited with 19½ miles an hour. She is equipped with a 25 horsepower Ferro. Mr. Johnson is not a member of any of the local clubs at present, but it is expected that he will soon join one.

THE HARD LUCK BUNCH OF THE SLOOP ALERT.

Just off the Point the good ship lay,
With never a breath of wind that way.
Both long and loud the captain swore,
With Santa Cruz just a mile or more.
Oh! wasn't it awful, Mabel!

We had led the fleet and the end in sight,
When just off the Point the wind grew light;
We struck a dead calm and never a breath
Of wind we got; 'twas as still as death.
Oh! wasn't it awful, Mabel!

We've got the boat and we've got the crew,
But without the wind what could we do;
So we all laid to—or three or more,
And we sat around and swore, and swore.
Oh! wasn't it awful, Mabel!

We used Cud. West for the port side light,
And his red nut shone out clear and bright.
Then over the wireless they flashed the news
The Ruby arrived at Santa Cruz.
Oh! wasn't it awful, Mabel!

Now this is the tale of the Hard Luck Crew
Of the sloop Alert and the captain too;
They did their best and they tried to win,
But the JINX was there and he worked like sin.
Oh! wasn't it awful, Mabel!

Off on the shore three lubbers sat;
Kelly and Herb and Frank the Fat;
And all around 'em the air was blue
As they sat and wished they were with the crew.
Oh! wasn't it awful, Mabel!

Now this is the end of my silly tale;
Next time we'll pray for a howling gale;
Then we'll leave that bunch so far behind
The trail of our boat they never will find.
Oh, isn't it awful, Mabel!

—Kelly, the Rag Time Poet of the Sloop Alert, C. Y. C.

THE TALE OF THE SOX.

Just picture Will and his swell picture box,
Picture the picture of Will's fancy sox,
Picture his face when Willie got back
And found his camera just sox blue and black.
That's a picture no artist can't paint.

Just picture his folks if they happen to hear
This terrible tale about Willie dear;
Just picture the scene if they happened to be
Some dear girl's silk stockings, how funny 'twould be.
That's a picture no artist could paint.

Just picture Willie toggled out so neat
 With only one pair of sox to his feet;
 Picture poor Willie in bitter despair,
 Then Tom to the rescue, and loaned him a pair.
 That's a picture no artist could paint.

Picture a camera used as a trunk,
 A story like this sounds all to the bunk;
 Picture the pictures he got on the trip,
 Twixt the sox and the box, there's many a slip.
 These are pictures no artist can paint.
 —Kelly, the Rag Time Poet of the Sloop Alert, C. Y. C.

Saturday, September 18—Open.
 Sunday, September 19—Open.

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Golden Gate Yacht Club—W. Carlsh, secretary; F. Mayno, commodore. Clubhouse, Sausalito.

Sunday, September 5—Power boat regatta, Rousseau cup.

Thursday, September 9—Pacific Inter-Club regatta.

Sunday, September 12—Open.

Saturday, September 18—Cruise to Vallejo.

Sunday, September 19—Return from Vallejo.



One of the Gorham Engineering Company's Demonstration Launches in San Pedro Harbor.

PROGRAM OF THE YACHT CLUBS.

San Francisco Yacht Club—H. A. Russell, secretary;
 J. R. Hanify, commodore. Clubhouse, Sausalito.
 Sunday, September 6—Open.
 Monday, September 7—Labor Day.
 Wednesday, September 8—River cruise, special orders.
 Thursday, September 9—Admission Day.
 Saturday, September 11—Open.
 Sunday, September 12—Open.
 Wednesday, September 15—Members night at club-
 house, billiards and cards.
 Saturday, September 18—Open.
 Sunday, September 19—Open.

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Corinthian Yacht Club—Dr. J. L. McMahon, secretary;
 W. Frank Stone, commodore. Clubhouse, Belvedere, Cal.
 Saturday, September 4—Alviso and meet South Bay
 Yacht Club.
 Sunday, September 5—Alviso.
 Monday, September 6—Labor Day—Return from Al-
 viso.
 Thursday, September 9—Inter-Club Regatta.
 Saturday, September 11—Open.
 Sunday, September 12—Open.

California Yacht Club—E. A. Chamberlain, secretary;
 E. S. Broadwater, commodore. Clubhouse and anchorage,
 Brooks Island.

Sunday, September 5—Open.

Monday, September 6—Open.

Thursday, September 9—Inter-Club regatta.

Saturday, September 11—Open.

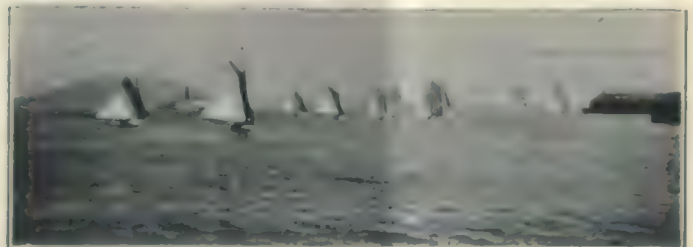
Sunday, September 12—Open.

Saturday, September 18—Open.

Sunday, September 19—Ex-Commodore D. J. Keane's
 handicap regatta.

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Motor boat service has been introduced on the Viga
 Canal from Mexico City to Lake Xochirnileo, the trip be-
 ing made in about three hours. S. Malo is the head of the
 concern.



CHARTER MARKET.

Five grain-carriers under charter to transport wheat from Portland to European ports are now in the river, and the entire fleet will probably get away next month with cargoes aggregating close to 600,000 bushels. They will be the first offshore vessels to leave this season, which promises to be one of the most brisk in the history of the port.

The four grain-carriers which will clear this month are the French barks Bidart, Colonel Villibois de Mareuil, Emilie Siegfried and the British ship Glenholm. The Emilie Siegfried reached the river from San Francisco in ballast a week ago. She is expected to leave up for the ballast dock at Linnton toward the early part of next week. The other three have been in the river for some time, and will soon be in shape to begin taking on cargoes. Each of the five windjammers was engaged at the union rate of 27s 6d.

Before September is far advanced several other ships under charter to take out wheat are expected to put in appearance. The present prospects are that in the neighborhood of 1,000,000 bushels of the cereal will be set afloat in Portland before the end of next month. But as is usually the case the cereal shipments from the Willamette will be much heavier in October.

In the event that some of the grain-carriers which were chartered early in the season do not arrive before their canceling date it is probable that some of the disengaged ships at Portland will be picked up to take their places. There is a rather formidable fleet of these to select from, and it is understood that they will be on the market at the association rate.

Much of the new-crop grain arriving from the interior has been sent to California in the past two weeks. But within the next fortnight the big bulk of the shipments will be dispatched to the ports across the seas.

Tramp steamers are having no difficulty in finding employment from this coast. Only two of the considerable fleet of steamers en route to this coast are not now under fixture for cargoes from the North Pacific. These are the British steamers Belle of Scotland and Strathfillan, which are due on Puget Sound with coal from Newport News within two weeks. It is probable that they will also be fixed prior to arrival.

Freight rates for coastwise and Mexican business show signs of improvement.

French vessels at Portland are largely in the lead, and of the 43 craft enroute 29 fly the French flag. Other nations are represented as follows: British, 9; German, 4; Dutch, 1. There is an amount of disengaged tonnage on the coast, but no offers are being made for spot ships. The Leyland Brothers hold the record for a long stay in port. She has been in the river since March, 1908.

In view of the cheapness of flour at Shanghai and the favorable prospect of the wheat crop, it would seem reasonable for the Chinese to consider shipments to foreign markets. It is known that Chinese flour of good quality

could be delivered at Vladivostok and in the Philippine Islands at lower prices than are now paid there for Siberian and Australian flour, respectively, and the export of some thousands of tons would be a distinct benefit to Shanghai millers as well as to the growers of wheat. These considerations are of no avail, however, against an ancient law prohibiting the export of flour and food-stuffs for domestic consumption.

Only in case of an official request for flour for a foreign government's use would a request for exportation be favorably considered. We have, therefore, at present in Shanghai flour, plentiful, cheap and not in local demand, with a strong demand from neighboring ports which must remain unsupplied not only to the loss of the native producer, but to the inconvenience of the foreign consumer.

EMIGRATION OF LABORERS.**Decree of President Obaldia of the Republic of Panama Regulating It.**

Decree Number 25, of 1909. (12th May).

By which the contracting of laborers for other countries within the territory of the Republic of Panama is regulated.

The President of the Republic considering:

1. That the Government is reliably informed that some persons constituting themselves employment agents, or labor contractors, especially in the cities of Panama and Colon, are inducing the laborers in the employ of the Isthmian Canal Commission to accept work in foreign countries, holding out to them for that purpose more or less flattering promises;

2. That such practice has the result that large numbers of laborers, listening to the promises of those who hire or contract them, emigrate from this country, thereby violating their contracts and obligations with the Isthmian Canal Commission constructing the Canal;

3. That the interests and aspirations of the Republic of Panama and the United States are closely allied with the works of excavation and construction of the Canal, a reason why the Governments of the Republic and the Zone in their character of immediate agents of their countries should mutually afford to each other such energetic and efficacious protection as will tend to preserve the uniformity and discipline of the Canal construction work at the theater of operations;

4. That the Government of the Republic of Panama considers it of vital importance for the future that the better element of laborers coming to the Isthmus, instead of leaving the country during the course of the Canal work, or at its conclusion—on account of lack of work—be stimulated to take up—if such be their wish—their residence in the Isthmian territory—a thing which may be considered as a substantial basis for the immigration of a desirable class and of little expense to the National treasury; and

5. That the Executive deems it urgent that immediate measures be adopted to stop the practice which motivates this decree in order to protect the interests of the two countries pledged to construct the Isthmian Canal.

NOTICE TO NAVIGATORS, MARINE ENGINEERS, MARINERS AND SEAMEN

This page will be reserved exclusively for all official notices and information of importance

NOTICE TO MARINERS—SAN DIEGO ENTRANCE, CALIFORNIA.

Office of U. S. Light House Inspector, 12th District.

(List of lights and fog signals, Pacific Coast, 1908, page 10, after No. 1, and list of lights, buoys and daymarks, Pacific Coast, 1908, page 13.)

Notice is hereby given that a black gas buoy, marked "3SD" in white, and showing a fixed white light during periods of 10 seconds separated by eclipses of 10 seconds duration, was established August 23, in place of San Diego Bar Outside Buoy 3, a first-class can buoy, heretofore marking the location, which was then discontinued.

By order of the Light House Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, Twelfth Light House District.

813 Mutual Savings Bank Building, 704 Market St.
San Francisco, Cal., August 18, 1909.

Applications will be received at this office during the next thirty days for filling the position of laborer (cook) at St. George Reef Light Station, off Crescent City, California, with pay at the rate of \$42 per month and found.

Applicants must be citizens of the United States, over eighteen years of age without family.

Application blanks and full information can be obtained by applying to this office, or to keeper at St. George Reef, or to keeper at Crescent City Light Station, California.

W. G. MILLER, Commander, U. S. N.,

Chairman Local Civil Service Board for the Light House Service (Inspector's Department).

The Hydrographic Office communicates the length of a nautical mile in meters as adopted by the United States:

"In the United States the nautical mile is defined to be one-sixtieth part of the length of a degree of a great circle of a sphere whose surface is equal in area to the area of the surface of the earth. This value, computed on Clarke's spheroid, is 1,853.248 meters."

Nipe Bay, Felton, and Antilla, Cuba.—Nipe Bay, on the north coast of Cuba, latitude 20 deg. 46 min. N., longitude 75 deg. 31 min. W., contains several small towns of growing importance, the trade of which is rapidly increasing. Iron ore is found near at hand and the Spanish-American Iron Company is developing the port for use in their shipments.

TIDE TABLE TO WEEK ENDING SATURDAY, SEPTEMBER 18

Golden Gate Entrance to San Francisco Bay.

AUGUST

1st quar	Sun	22	3 48	3.7	9:00	2.2	15:33	4.9	22:12	1.6
	M	23	5 18	3.5	9:45	2.5	16:07	4.9	23:25	1.3
S	Tu	24	6 56	3.5	10:28	2.9	16:52	5.0		
	W	25	0 26	0.8	8:08	3.7	11:43	3.2	17:42	5.2
Full	Th	26	1 25	3.3	9:02	4.1	12:53	3.3	18:57	5.5
	F	27	2 18	0.2	9:47	4.4	14:00	3.2	20:00	5.7
P	S	28	3 08	0.6	10:26	4.7	15:00	3.0	21:00	6.0
	Sun	29	3 55	0.8	11:00	4.9	15:53	2.6	21:55	6.1
	M	30	4 38	0.9	11 34	5.2	16:43	2.2	22:48	6.1
	Tu	31	5 22	0.7	12:07	5.4	17:33	1.8	23:40	6.0

SEPTEMBER

E	W	1	6 03	0.2	12 42	5.5	18:25	1.4		
	Th	2	0 33	5.7	6 50	0.2	13:18	5.5	19:18	1.1
3d quar	F	3	1 32	5.2	7 35	0.9	13:56	5.5	20 10	0.9
	S	4	2 38	4.9	8:18	1.5	14:35	5.5	21:06	0.7
N	Sun	5	5 57	4.5	9:05	2.2	15:21	5.5	22:15	0.6
	M	6	5 30	4.1	10:58	2.9	16:12	5.5	23:28	0.4
Full	T	7	6 58	4.1	11:02	3.2	17:16	5.4		
	W	8	0 42	0.2	8 11	4.3	12:18	3.4	18:25	5.4
New	Th	9	1 48	0.0	9:08	4.5	13:37	3.4	19 30	5.4
	F	10	2 43	0.2	9:54	4.7	14:42	3.2	20 30	5.5
A	S	11	3 30	0.3	10 32	4.8	15:33	3.0	21 24	5.0
	Sun	12	4 08	0.2	11 08	5.1	16:16	2.7	22 12	5.5
E	M	13	4 42	0.0	11 36	5.2	16:55	2.3	23:07	5.4
	Tu	14	5 14	0.2	12 01	5.2	17:33	2.0	23:40	5.2
New	W	15	5 51	0.6	12:25	5.1	18 10	1.8		
	Th	16	0 20	4.9	6:22	1.1	12:48	5.1	19:47	1.6
A	F	17	1 00	4.6	6:50	1.6	13:06	4.9	19:25	1.4
	S	18	1 46	4.4	7 18	1.9	13:25	4.9	19:58	1.2
	Sun	19	2 40	4.1	7:50	2.3	13:48	4.9	20:45	1.1

Time used, Pacific Standard, 120th Meridian W.

0h—midnight, 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.

N—New Moon, E—Moon on the Equator, N. E.—farthest N. or S. of Equator
A. P.—Moon in apogee or perigee.

The town of Felton is the terminus of the railway from the mines and is newly built on the west side of Cagimaya Bay, on the southern side of Nipe Bay.

Preston, on Point Tabaco, is the port for sugar steamers, and Antilla, on the northeastern part of Nipe Bay, is the terminus of the railway to Santiago de Cuba and is connected with the railway system of the entire island. The entrance to Nipe Bay, while narrow, is deep and clear. Hydrographic Office Chart No. 1884 covers this port, but since its publication several additional buoys have been planted and the towns of Felton and Preston have been built.

In approaching, the light on Mayari Point can not be depended upon, and no vessel should attempt to enter at night. The red buoy in the entrance off Point Ramon is visible several miles and is the best leading mark in entering. It should be left to starboard and not rounded too closely. Strong currents and tide rips are frequently met with in this part of the entrance. Pilots are not necessary and will not come outside to take vessels in, but will board them off the pilot station on the south shore of the entrance after passing the red buoy. They are reported sometimes to be unreliable. Charges are high, ranging from \$22 for vessel of 1,000 tons gross to \$34 for one of 4,000 tons gross or over.

There is a black buoy on the edge of the bank to northward of the pilot station and another off Carenero Point, both of which should be left to port. The signal station on the hill to westward of the pilot station is destroyed and abandoned. All vessels are required to anchor to the westward of Carenero Point, on which is located the quarantine station at Saetia, until boarded by the health officer and given pratique. Then if bound to Felton stand to southward into Cagimaya Bay passing

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HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	18	Aug. 13	Bar buoy now right in channel.
Willapa Bay	27	June 9	No change in channel; 16 ft. M. L. W. in channel to South Bend
Columbia River	25	May 28	
Nehalem River	6	Aug. 13	Bar buoy 500 feet north of bar; channel shifting south.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	9	Aug. 10	Channel shifting to south.
Siuslaw River	5 1/2	Aug. 4	
Umpqua River	10	July 1	Channel is in good condition.
Cous Bay	17	Aug. 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	8	Aug. 15	Channel close to north jetty, 3 feet on middle ground, midway between jetties.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on bar.
Klamath River		Aug. 27	Very shallow; mouth of river almost closed.
Humboldt Bay	20	July 1	21 ft. in straight channel 20 ft. in channel.
San Pedro Bay	19	Aug. 6	No change in channel.
San Diego Bay	25	July 8	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

between the red and black buoys in the narrowest part of the channel and anchor off the town or go alongside the wharf, as the case may be. The town consists of a few houses, a store, a hotel, and a large electric light plant in the southern part, the iron chimney of which is a good landmark. A wharf with a single track railway on it extends 1,800 feet to 23 feet of water at its end, with 20 feet alongside the outer 200 feet. The wharf is lighted with electric lights and has a small red light at the outer end. A traveling crane of 15 tons' capacity can be used for unloading cars on lighters, but is useless for large vessels. Two mooring buoys are planted off the end of the wharf. About 100 feet to the northward of the pier is a small landing jetty for boats only. To the southward of the electric plant a large wharf is under construction with a 27-foot dredged channel leading to it. Work on the channel is in progress, its sides being marked with stakes. There are a few small lighters available, but ships use their own gear in handling cargo. Labor is good but scarce, at wages of about \$2.50 per day. American or Spanish money is used at face value. Provisions in moderate quantities can usually be obtained, although they are scarce at times. Fresh beef is high, but fruit, vegetables, and fish are to be had at reasonable prices. Water is very scarce, but of good quality for drinking and for boilers. It is piped to the wharf. There is being built a pumping plant which it is expected will furnish an unlimited supply of good water. The only coal is that belonging to the electric plant.

The railway to the iron mines is well advanced in construction, but mail and other communication is maintained by ferry to Antilla and thence by rail. There is no telegraph. The town is newly built and is used as a shipping point for iron ore from the mines. It is rapidly increasing in size and, in connection with the excellent harbor afforded by Nipe Bay, is destined to become of considerable importance. The custom-house is located at Felton, from which vessels trading anywhere in the bay must enter and clear. Preston is the name of the town built on Point Tabaco, Nipe Bay, and is the shipping point for sugar cargoes.

In proceeding there from an anchorage off the quarantine station the shoals to be avoided are all marked, but the buoy on East shoal is reported to have sunk. Middle shoal is marked with a stake instead of a buoy and the red and black horizontal striped buoys marking West shoal and the 14-foot spot north of Middle shoal appear as black only. The 10-foot shoal space shown on the chart is reported by the pilots to have only 8 feet over it at low water. From the extreme end of Point Tabaco

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a wharf has been built in a N. by W. direction for 1,900 feet, with 15 feet near the middle deepening to 21 feet at the end. It is lighted by electricity and carries a railway track communicating with the sugar estates inland. There are no facilities for handling cargo there other than ship's gear. Near the shore end of the wharf is a water tank and a short distance farther inland a large sugar mill. Provisions may be had as at Felton, but water is very scarce, there being almost none available.

Antilla, at the head of the bay, is approached by a narrow channel between shoals and carrying a least depth of 22 feet. The shoals are well marked with buoys and stakes. Carojal Point, on which the town is located, has been enlarged by filling in with the material dredged from a 22-foot basin along its northwest side. A short pier with 22 feet of water alongside has been built to the southward from its southern extremity, on the outer end of which is a red light on the southeast corner and a green light at the southwest corner. About 100 feet to the southwestward to the wharf and right in the fairway to the dredged basin there is a shoal spot having 16 feet of water over it at a point where the chart shows 21 feet. Antilla is in railway communication with Santiago de Cuba, and it is the residence of the American Consul, who is the only consul at Nipe Bay. Provisions are scarce and there is no water whatever, that used in the town being brought by rail in wooden tanks from Santiago. [This report, showing conditions existing February 27, 1909, was furnished the Branch Hydrographic Office, New York, N. Y., through the courtesy of Captain S. Muir and First Officer A. Lee, of the British steamer Ennisbrook.]

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SATURDAY, SEPTEMBER 18, 1909

VOL. II

NO. 18

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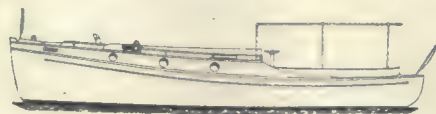
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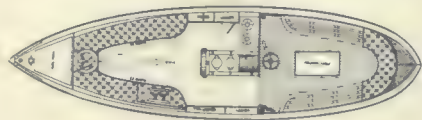
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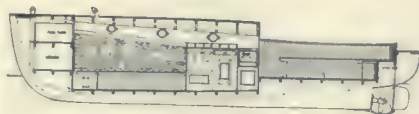
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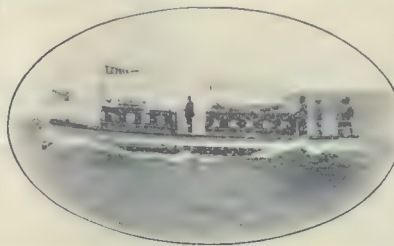
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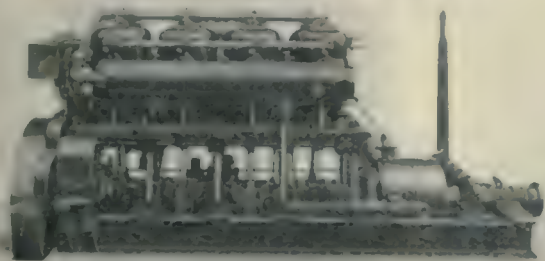
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Volume II

SATURDAY, SEPTEMBER 18, 1909

Number 18

COMMERCIAL RESOURCES OF THE PACIFIC COAST.

The Congressional committee, consisting of Richard Barcholdt of Missouri, Geo. W. Prince of Illinois, Geo. W. Taylor of Alabama, J. M. Miller, William A. Reeder and Charles F. Scott of Kansas, James McLachlan of California, A. J. Barcholdt of Pennsylvania, L. P. Paggett of Tennessee, W. A. Rodenberg of Illinois, W. R. Ellis of Oregon, H. Olin Young of Michigan, H. C. Woodyard of West Virginia, Ezekiel S. Chandler Jr. and B. G. Humphreys of Mississippi, W. Aubrey Thomas of Ohio, A. E. Dawson and James W. Good of Iowa, Polite Elvins of Missouri, Edward E. Miller of Illinois and E. S. Theall of New York, have passed through San Francisco en route to Hawaii by invitation of the Territorial Government. The wives and daughters of many of the Congressman accompany the party which increases the number to forty people. The delegation is in charge of Geo. B. McClellan, secretary of Prince Kalaniana'ole, Hawaiian delegate to Congress.

A short stop in San Francisco, planned by Prince Kalaniana'ole, enabled the entire party to participate in a proverbial California welcome under the auspices of the chamber of commerce of San Francisco. President James McNab and the trustees of the chamber of commerce, are to be commended for their prompt action, and the efficient manner in which they arranged for and entertained the visitors. The program was arranged consistent with the long overland journey, short stay in San Francisco and a 2,000-mile ocean voyage yet to be completed. Every spare moment of the party was occupied, with intervals of pleasure and investigation, and in such a manner as to class the visit, as a whole, one of intense interest. Automobile rides, banquet and bay excursions were combined into a happy medium between business and pleasure, and the consensus of opinion in leaving for Hawaii confirmed the guests' appreciation of their reception and entertainment in San Francisco.

Many of our citizens are imbued with the idea that the Congressmen are visiting Hawaii for the purpose of investigating Hawaiian conditions relating to the coastwise navigation law, with a view to abrogation of that law between the islands and mainland of the United States. Reduced to its simplest form, we can only conceive this impression to be "much ado about nothing." Congress may find some excuse for suspending the coastwise navigation laws in favor of the navy department by shipping coal from the Atlantic to the Pacific Coast in foreign tramp steamers, the excuse, if made, could not possibly extend beyond the scope of the foreign tramp steamer, being a non-subsidized vessel quoting a price of \$3.20 a ton, against the Matson Navigation Company's offer of \$7.00 per ton in the *Wilhelmina*, a non-subsidized American vessel.

At the close of this article we will endeavor to prove the fallacy of using foreign ships by the Government. We cannot believe the coastwise laws will ever be abrogated between Hawaii and the mainland to satisfy the

whims of a few wealthy globe-trotters, touring the world at their leisure, surfeited with travel in foreign lands. Their first view of the American flag, possibly since having left the United States, should at least inspire them with sufficient patriotism to wait an American ship, in the meantime adding to their store of pleasure a fund of knowledge unavailable elsewhere in the world, a knowledge of a people and country the first of American adoption, a country that shipped domestic merchandise valued at \$41,000,000 for the first six months of the present year, indicating the thrift of the people and resources of the islands which, in the event of war against the United States, stands ever on duty as a sentinel in the mid-Pacific and base of supplies for defense of the mainland, possibly able to repulse a first attack or suffer complete annihilation by the enemy, a country compared with no other that can ill afford to invite foreign interference peacefully or otherwise.

The duties of the Congressional committee in visiting Hawaii embraces questions of the gravest responsibility. The names of those comprising the committee is evidence of the wisdom used at Washington in its selection, and precludes the possibility of an error of judgment in the many vital question and interests involved in its appointment. If possible to be judged by the same standard, the people of the Pacific Coast should avail themselves of an opportunity to open every possible means of investigation whereby, by means of this committee, they may impress Congress with the important part that inevitably will be assigned to the Pacific Coast in the future commerce of the United States. Individual requirements of the Pacific Coast should not be confounded with artificial requirements, nor either with the wants of favored sections.

The 3,000 miles of Pacific Coast line should be thoroughly inspected. This grand emporium, as it were, contains much of the wealth of the United States, and in which all the elements of the life of its people and powers of existence is stored. The agricultural and commercial resources are those in which all others merge. The wide difference in railroad conditions, existing between the Pacific and Atlantic states frequently demands legislation difficult in the extreme, often raising the thoughtless cry of discrimination in our legislation. Admitting discrimination in its broadest sense to be the fundamental principle of legislative science, the world has erected the temple of justice enclosing the shrine of discrimination to which the peoples of the world trend for worship.

The limited time at the disposal of our distinguished guests permitted them to take but a casual view of the picturesque and expansive features of the port of San Francisco. In bidding adieu the party agreed to return and spend more of their valuable time on the Pacific Coast. We can assure them of additional surprises from an inspection of our coast line, and the important part assigned to the Pacific Coast in the development of the commercial progress of the United States.

As guests of the chamber of commerce of San Francisco, the party was domiciled at the world-famous St. Francis hotel, where a banquet was held in honor of the visitors. Within easy access of the St. Francis could be seen substantial evidence of the wonderful growth of the most modern built city of the world, also representing almost sixty per cent recovery from a loss of \$400,000,000 within a period of three years. As guests at the St. Francis, opportunities were offered for minute inspection of the American standard model hotel. The perfection of the hotel system in California is unequaled in any other part of the world. The St. Francis and Fairmont, now open to the public, and the Palace, nearing completion, in San Francisco are characteristic of most first-class hotels in the more populous cities of the Coast from San Diego to Puget Sound. To a great extent the hotels of all prosperous and progressive cities furnish to a marked degree safe evidence upon which to base investments in the resources of the sections supporting such magnificent buildings, equipments thereof and superior management as may be found on the Pacific Coast.

The entrance to the Bay of San Francisco is nearly a mile in width and has an average depth of five and one-half fathoms, with a commodious channel having a minimum depth of nine fathoms. The waters of the entire bay cover an area of over 250 square miles, twenty-four miles of which are in the immediate vicinity of San Francisco, and are now used as anchorage ground, exclusive of fairways, which occupy seven square miles. In addition there are available for anchorage in San Francisco bay proper, while in the adjoining extensions, known as San Pablo and Suisun bays, there are over twenty square miles of additional anchorage ground, making a total of some 100 square miles, with a depth ranging from 18 to 60 feet at low tide.

The Golden Gate is the entrance which connects the bay of San Francisco and tributary rivers with the Pacific Ocean. It is about three miles in length with a maximum depth of 360 feet. Outside the entrance, and about six miles distant, is the "bar" on which there is a depth of at least 33 feet at low tide. There is also another water channel of approach to the harbor, known as the North or Bonita Channel, which is one-third of a mile in width and a depth of 54 feet. No matter how great the draft of the ship of the future, it will always be able to enter this port in safety.

At San Francisco nature has supplied a deep, safe, commodious waterway open to the commerce of the world. San Francisco, with San Pablo bay its northern extension, covers an area of 420 square miles. The shore line of San Francisco bay alone, leaving out of consideration, for the time, its numerous navigable inlets, measures 100 miles in length. From the southern portal of the Golden Gate at Fort Point, along the bay shore of San Francisco and San Mateo counties to Dumbarton Point, thence across the narrows and along the the shores of Alameda, Contra Costa, and Marin counties to Lime Point, every mile is suitable and available for commercial and industrial use. The City of San Francisco, situated on the peninsula on the south side of the entrance of the bay, has within its city and county limits a water frontage on the bay from Fort Point to the boundary line of San Mateo county, about 10 miles in length. If the measurements be made along the shore line to include the channels and basins, viz.: South Basin, India Basin, Islais Creek, Central Basin, and Channel street, the water-front has an aggregate length of 13 miles.

San Diego Bay, the extreme southern part of Cali-

fornia, is destined to be one of the great shipping points of the Pacific, and at present is one of the leading ports of call for the steamer lines plying between Panama and Alaska. Having an anchorage area of $9\frac{1}{2}$ square miles in the bay, with a depth of from 30 to 50 feet, and a depth of 28 feet over the bar at low tide. San Diego Bay, which is always a safe port under all weather conditions, only awaits the completion of the Eastern railway lines to become the ocean port of a rich and vast area of fertile country. San Diego now has coal bunkers of sufficient capacity to supply all freight and passenger steamers. This port is extremely popular with the Navy Department as a harbor for war vessels, while on southern duty. The Federal Government has recently completed a coal-station of 40,000 tons capacity at San Diego.

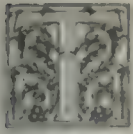
The construction of a seawall will bring into immediate use much and valuable reclaimed lands, which will be utilized for commercial purposes. Add to these reclaimed lands the contemplated state wharves, which will have 30 feet of water, and San Diego will have ample facilities for the handling of an immense commerce. Upon completion of the San Diego and Arizona Railroad the shipping demands will be largely increased. In 1906 the territory tributary to San Diego produced oranges and lemons valued at \$23,000,000; the railroads absorbed approximately \$14,000,000 of this amount for freights. There is a total of 1,265.46 acres of tide lands at San Diego, with an assessed valuation of \$1,691,884.

Humboldt Bay, the extreme northern port of California, a careful inspection of which reveals the possibilities of that port, if there is proper assistance from the Federal Government. There are a number of deep basins having from 27 to 49 feet of water, and even more in places, that are separated by shallow "hogbacks," on which from 9 to 18 feet of water is found. The expense of dredging these will not be great, but private parties, after having deepened the water at their wharves, cannot undertake the work. The present commerce of Humboldt Bay is principally with coast ports, lumber constituting the greater portion. A growing trade exists with Hawaii, Central American States, South America, England and Australia. The products other than lumber are constantly increasing in volume and value. The amount required to prepare the bay for the largest vessels afloat need not necessarily be great, but there must be an expenditure to secure the greatest facilities for shipping.

The port of Eureka is one of importance, as recognized by the newly appointed representatives of the late E. H. Harriman, who appropriated \$2,000,000 for railroad extension to Humboldt County. Experts claim there are 40,000,000,000 feet of commercial lumber in Humboldt and Mendocino Counties, and which contain one of the most promising agricultural and dairying sections in the United States. The merchants and citizens of Eureka have raised a fund of \$400,000 for the cost of the road.

Humboldt Bay has an area of about $23\frac{1}{2}$ square miles, and is the most important center of the lumber industry in the State. It is also the most important shipping point for dairy products on the Pacific. For the purpose of making the entrance to the bay safe for all vessels the Federal Government has constructed twin jetties into the ocean. By reason of the sandy ground on which they rest, and the effect of heavy storms, these jetties have been considerably damaged, the entrance to the bay having also shoaled. Shortly after the completion of the jetties there was a uniform depth of 30 feet at the entrance, and all vessels entered with perfect safety.

(Continued on Page 9.)



THE GENERAL impression prevails that those of our citizens who advocate ship subsidies are either directly or indirectly connected with a mysterious ship-building trust. Thoughtlessly stated, the result is disastrous to American commerce. Practically viewed, as well may the farmer who owns a plow be connected with the steel trust, or the builder who erects a building with the innumerable trusts that represent the materials required in building construction. The first decries ship subsidies as teeming with designs on the Treasury, while the second commends it as the means by which the United States will acquire and retain commercial supremacy of the world. The item of freight in the average mercantile business is comparatively a minor consideration, until the points of unjust discrimination, prohibitive rates or restrictive measures are reached. It is then that those affected form a general opinion of the real facts, and establish a standard from which to estimate their true value. Minor facts are judged accordingly as they affect the great ones. The progress of this principle is now visible in the matter of the American merchant marine, and few are to be found outside of Congress who are not prepared to forget the loss to the United States in the neglect of a merchant navy.

In seeking opinions from others, we arrive much nearer a knowledge of true conditions, and measure results from a judgment of the qualifications of those who express themselves. Inspired with the idea of giving to our readers the benefits to be derived from the opinions of others, we have interviewed a number of the citizens of Oakland and San Francisco, our selection being taken from a class of the greatest intellectual, moral and commercial activity. The list embraces the names of those inseparably identified with Pacific Coast progress and interests.

James McNab in a Communication from the Chamber of Commerce of San Francisco—

San Francisco, Aug. 24, 1909.

To the People:—

We desire to call your attention to the condition that confronts San Francisco and the extreme urgency and necessity for legislative action in support of an American Merchant Marine. In view of the heavy appropriations in recent years for a navy, it is surprising that no successful action whatever is being taken by the Senate or House to rehabilitate our merchant shipping. The importance of this rehabilitation to the whole coast and to San Francisco in particular, is emphasized by the loss of revenue to this city, due to the withdrawal from active business (owing to the impossibility of competing with foreign tonnage) of the Oceanic Steamship Co. This company's annual expenditure on its three ships, now laying up and rusting in the bay, amounted to \$1,000,000, this sum being spent in San Francisco alone. The customs records show that since this line was withdrawn the loss in exports approximates \$1,250,000 annually. As this trade was increasing yearly prior to the withdrawal of the line it is easy to see that this loss is much greater than the figures indicate; how much, it is impossible to say.

The loss to this city alone from tourist traffic cannot be measured entirely in dollars and cents, but in actual cash it figures about \$750,000 per annum. When the importance of the direct visits of prominent merchants and tourists from all parts of the world, passing through the city, is considered, it is difficult to estimate the total loss.

If any man had ten years ago predicted that inside of ten years the shipping tonnage of Japan would rise from 477,430 tons to 1,115,880 tons he would have been called hopelessly visionary. Yet this has happened. While the United States discussed ship subsidies, Japan subsidized shipping. Hence the astonishing increase in Japanese foreign trade in the same ten years from 35 per cent to 43 per cent. Hence Japanese carrying control of the Pacific. In inverse ratio to the gain in Japanese shipping interests on the Pacific American shipping interests, ignored by the American government, have steadily declined. These very plain facts show one phase of the Pacific shipping situation. There are others. Each indicts the American government for its costly folly. The case of the Oceanic Steamship Co. is a depressing object lesson. In the absence of the governmental assistance the company was unable to compete with foreign tonnage and had to abandon the ocean.

The Canadian-Australian mail liners running between Brisbane, Australia, and Vancouver, average nearly 500 passengers a trip. The last Canadian-Australian mail liner trading between Sydney and Brisbane, Australia, and Vancouver direct, carried 524 passengers; the previous steamer 432. The great majority of these passengers are prominent men of affairs of Australia and Great Britain and the world in general. Many tourists who have visited Australia from the United Kingdom and continent of Europe, in returning would undoubtedly pass through this city, if a direct passenger service were maintained. Landing in Canada they naturally cross the continent by the Canadian railway line and make their expenditures in Canada. Of the indirect consequential losses resulting from the withdrawal of the American-Australian line, we can only speculate. The visible and clearly understandable losses are sufficiently impressive. They point a moral and adorn a tale.

Australia at the present time is doing an annual business of \$50,000,000 with the United States, and with the exception of a few foreign vessels, we have no direct communication between the Pacific Coast and the Australian coast. While this phase of the situation is bad, it is not nearly as serious as the position in which this country would find itself should the nation become involved in war with any of the maritime nations of the earth. Our commerce would be paralyzed and our navy tremendously hampered through the lack of merchant ships needed as transports, auxiliary cruisers and colliers. Shall we wait until we thus demonstrate the folly of our present inactivity, at the same time pouring out millions of dollars annually on a navy which any seaman knows would be short at least 40 per cent of its total efficiency from lack of proper attending merchant service?

The Associated Chambers of Commerce of the Pacific Coast recently sent a delegation of coast business men to tour Japan as the guests of the Japanese chambers of commerce. In September, Japanese chambers will send a delegation of their members to tour the United States as the guests of the Pacific Coast chambers of commerce. In February, 1910, the chambers of commerce of San Francisco, Seattle, Tacoma, Spokane, Portland, Los Angeles, Oakland and San Diego will send a delegation of business men to China by invitation of the chambers of commerce of Shanghai, Amoy, Foochow, Nanking, Canton and Woochow. These exchanges of commercial courtesies illustrate the growing intimacy between the Pacific Coast and the Orient. They show that no matter what political

policies may be adopted by the various governments on the rim of the Pacific the business interests of this country and those of the Orient are bound to tie the two coasts together. There is no escaping this conclusion. There is no escaping the fact that in anticipation of this close connection the United States should show more than a languid interest in safeguarding American trade interests in the Orient. The exchange of polite notes between the government of the United States and those of Oriental countries is a praiseworthy practice and should be encouraged. It has its uses. But this correspondence can neither arrest the decline of American shipping on the Pacific nor promote and protect American trade in Oriental countries.

The greatest trade stake today is the trade of the Orient. It amounts to \$3 per capita per annum. These are the figures of Mr. Howard Elliott, president of the Northern Pacific Railway Co., who knows whereof he speaks. Mr. Elliott predicts that within three years the Oriental trade will more than double.

The Orientals are alive to the trade opportunities of the Pacific. They have shown that they are determined to utilize these opportunities. By a strange irony of fate instead of being exploited by western nations the Orientals, especially the Japanese, are exploiting western nations. We of San Francisco are in close touch with the Orient and Orientals, and we therefore see things at close range and as they really exist.

It is to be hoped that the visit of the Japanese business men in September will impress the nation with the importance of speedily solving the American-Oriental trade problem. The only solution is the upbuilding of American shipping interests in Pacific waters.

Citizens of the United States: We earnestly ask your influence and aid in the emergency that confronts the Pacific Coast. It is no light matter with us. We earnestly appeal to you that you write your representative in congress or that you take occasion to discuss the matter personally with him and ask him to do all in his power to aid in the upbuilding of the merchant marine, an end that cannot be achieved without government assistance, for private capital cannot compete with the great resources of foreign nations. We do not desire government aid simply for the sake of the aid but only because we cannot advance without such aid. We cannot order the maritime policies of other nations. They have laid down the terms by which our people may be allowed to compete with them. We cannot change those terms but we can meet them and meeting them we shall soon excel them as they excel us now.

Our standard of living is higher in the United States, and American-born seamen will not submit to the low wage, poor food and poor quarters conditions of the foreign sailor. We must have help to overcome the difference in operating cost between an American vessel and a foreign vessel, or be prepared to see the flag of our country disappear from the Pacific and our commerce and safety rendered into the hands of aggressive competitors to the humiliation of the patriotic sensibilities of the people of the coast and to the great financial injury of our city and section. Will you help us?

Yours very truly,

JAMES McNAB,
President.

Frederick S. Samuels.

It is quite apparent that the United States is beginning to realize that something must be done in the direction of building up a Merchant Marine. The dependency of the American navy upon foreign ships to enable its fleets to cruise at any distance from home, and the building of the Panama canal, are two points that appeal to the inland inhabitants very forcibly. They can at least understand why it is disgraceful, and even dangerous, for American war vessels to carry their supplies in foreign bottoms; and they can also realize that we are spending hundreds of millions of dollars on the Panama canal for alien flags to use almost exclusively. Those things appeal directly to their patriotism. The most essential features, such as the commercial necessity of dealing direct with the world's markets through the medium of ships under our own flag, they have been slow to grasp. Hence the decadence of the American Merchant Marine. I am satisfied that the education of the people has not advanced far enough as yet to enable a general subsidy bill to be passed, and probably it were better to make no such attempt until after we had felt our way by experimenting with a modified form of shipping legislation, such as the establishing of ocean mail lines to various foreign ports, thus practically demonstrating the value of subsidies in promoting our welfare.

There is a law now that has been in existence since March 3rd, 1891, called "An Act to Promote Commerce." This law permits the creation by the Postmaster General of mail routes to foreign ports, but unfortunately its provision for amounts of compensation is inadequate, as experience has shown. Hence the law, otherwise an excellent one, has been practically a dead letter. This law should be amended by doubling the remuneration, and otherwise left untouched. If this were done, a fleet of at least sixty 7,000 ton steamers of 16 knots speed could be put in operation between the various ports of the United States and the foreign markets most inviting to us. To build these vessels would involve an expenditure of fully \$78,000,000 of private capital. To enable them to be operated successfully would cost the government not to exceed \$7,000,000 annually. What would the United States get in return for such an expenditure of \$7,000,000 a year?

First—The building up of ship-yards through the demand for vessels. Think of orders placed for seventy-eight million dollars' worth of tonnage, and the experience gained in such construction being the means of cheaper building in the future.

Second—The American navy would have at its command a great auxiliary fleet to support it in event of war, always ready at short notice for use as transports, for troops, coal, ammunition, hospital, refrigerator, or other service. Our not having such ships added millions of dollars to the expense of our war with Spain.

Third—Over ten thousand Americans would find employment on such a fleet, who, having the sea habit, would help recruit our war vessels.

Fourth—Our mails would be carried free. Our trade with foreign countries would be direct, and not by round-about routes under foreign flags. By speed and frequency

of sailings we would shorten distances between our markets, and thus facilitate commercial relations with them.

Fifth—Over \$24,000,000 gold per annum would be retained to this country that would otherwise be paid out to foreign vessels in fares and freight.

The figures used herein are not taken at random. They are studied out in the light of experience, and I maintain that \$7,000,000 per annum would accomplish these results, and much more. That amount of money is an insignificant sum to the United States—merely the cost of one battleship per year, which becomes obsolete almost as soon as it is built, while the 60 naval vessels would be constantly adding wealth and prosperity to the country.

Most of the shipping bills introduced in Congress are so framed that to a practical shipping man they appear as Chinese puzzles, and I have yet to see one that has a chance to become a law, in view of the diversified interests which they attempt but fail to harmonize. One cannot combine in any subsidy proposition the interests of the ship-builder, the ship-owner, the producer, the consumer, and the mariner. I say, stay with the present law of March 3rd, 1891, double the schedule of its compensation; limit the authority of the Postmaster General to an annual expenditure under this law of \$7,000,000, and in my humble opinion that is the only practical solution of the shipping problem, for the present, at least.

H. C. Capwell, H. C. Capwell Company, The Lace House, Oakland, Cal.—

For over thirty years the term, "ship subsidy," has been before Congress and the American people. Ideas more or less clear, and of wider or more contracted signification have been attached to the term. If the term is not definitely understood by the people, Congress certainly has no excuse for not doing so. It is common sense which gives to words their popular signification, the standpoint from which the people view the term, ship subsidy; and there the term remains with the people, in a chrysalis form. Congress on the other hand has been privileged to view the term in its perfect state, have called to their assistance and been accorded every possible aid to science for a most minute investigation. Experience, statistics of the countries of the world, the commercial supremacy of the United States from 1795 to 1860, while operating under ship subsidies, postal subventions, and tonnage discriminations, political party opinions and platforms, selfish and liberal motives, absence of the American flag on the high seas, American battleships receiving coal from foreign vessels, without recourse the necessity of the United States officials being compelled to take passage on foreign vessels, the increased commerce of every foreign nation under ship subsidies, not excepting that of Japan within the last five years, coastwise laws made for the protection of American ships broken by the navy department by carrying coal in foreign bottoms, idle vessels in every port of the United States, the ship building industry of the United States a thing of the past, the expenditure of \$500,000,000 to build a canal for ships we have not built, and do not own, the millions of dollars paid yearly to foreign vessels to carry American goods and mail to foreign countries, no direct communication with the civilized world except by foreign ships, our merchants unable to fill orders for American goods for foreign people who are willing to pay a premium for these goods, the master minds of American statesmen and chief executives of the nation for the past forty years, have without

exception respectively advocated ship subsidy measures, and in their annual messages, have invariably appealed for prompt and efficient action in behalf of a merchant marine; the power vested in Congress by Section 8 of the Constitution of the United States, which grants to that body full power in the following language: "To regulate commerce with foreign nations, and among the several States, and with the Indian Tribes;" and last but not least the "Ocean Mail Act of March 3, 1891." Part of Section 1 of which reads as follows: "The Postmaster General is hereby authorized and empowered to enter into contracts for a term of not less than five nor more than ten years in duration, with American citizens for the carrying of mails on American steamships, between ports of the United States, and such ports in foreign countries, the Dominion of Canada excepted, as in his judgment will best subserve and promote the postal and commercial interests of the United States, the mail service on such lines to be equitably distributed among Atlantic, Mexican Gulf, and Pacific Posts." Notwithstanding this remarkable list of facts, and avenues of investigation by which Congress should have consistently decided the ship subsidy question, the last session of Congress decided in February not to amend the Ocean Mail Act of March 3, 1891, by a vote of 172 to 175, and defeated a measure of vital importance to our commercial interests.

Frank William Bilger, Blake & Bilger, Contractors, Oakland, Cal.—

Americans as a rule are inclined to view national questions from a contractive, and frequently extending to a selfish point of view. I am not sufficiently familiar with the ship subsidy subject to discuss the merits or demerits of that policy. I will state, nevertheless, that I would indorse any reasonable legislation to rehabilitate the American merchant marine. The development of the United States is due to a fixed principle, the very essence of which should have been applied and perpetuated in fostering our trade with foreign countries through the medium of American ships, built in American shipyards by the American people, and manned by American seamen.

As indicated in my opening remarks, I am inclined to take a more contracted view of the merchant marine subject, and to speak from the standpoint of personal observation and experience, by confining my opinion to Pacific Coast affairs. Before passing, I would like to emphasize my opposition to government ownership of the merchant fleet of the United States.

Every possible attraction to shipping on the Pacific Coast should be effectually advertised to the world. No other country possesses 3,000 miles of coast line, containing harbors susceptible to improvement at a less expenditure of money, than do the harbors on the Pacific Coast, from San Diego to Puget Sound. Lack of organization, and concentration of effort by the Pacific Coast cities, is immeasurably responsible for the loss of much of the oversea traffic.

W. G. Stafford, President State Board of Harbor Commissioners, San Francisco—

I am heartily in favor of the adoption of the ship subsidy policy. Postal subventions also should be extended to shipping with the same degree of liberality as have been granted to the railroads. If the United States has established a standard in its material industries, commerce with foreign countries should be raised a point

above all others. We have been compelled to witness on the high seas, many silent insults to the American flag of our merchant navy. We are maintaining a fighting squadron at an annual expense of \$130,000,000, which is peace purchased at a large discount. How would our battle ships operate if called upon to protect American capital invested in foreign ships sailing under a foreign flag, in the event of war between foreign nations?

R. B. Hale, Hale Bros., Inc., San Francisco—

When will the appropriations for bigger, and still bigger ships, greater, and still greater navies, cease? When smaller yet more ambitious nations realize the futility of endeavoring to cope with vastly greater and richer countries. The suggestion of disarmament is inspiring. The thought of setting the world an example in this direction, is ideal, but unfortunately we are not dealing with the ideal; we are compelled to face the practical side of present-day problems and for us to disarm, while other nations, with which we are even now competing, industrially and commercially, and with which we may have to compete by force of arms, are spending vast sums for armament, is to invite disaster. Only when nations, financially weaker than ourselves, realize that we will build two ships for every one of theirs—that we will equip our army up to proper standard, and keep our navy in fighting trim to meet any emergencies, and that this policy is fixed and unalterable, will those nations realize the futility of endeavoring to surpass our equipment and be ready to lay down their arms, cease their great appropriations, and look to The Hague courts for the disposal of all International disputes.

The best foundation for an adequate navy is a large and efficient Merchant Marine. Other nations are building, under Government subsidy, large and high-speed ships which are constructed so as to be readily converted into cruisers in time of need. These vessels are operated under Government subsidy, and their own citizens are being educated in the handling of these ships. Some provision should be made by our government which will bring about similar conditions. We have heard claims made that government subsidy is the only panacea for the building of a Merchant Marine, while others contend that if the government restrictions were removed, no subsidies would be necessary.

With a problem so important to the future welfare of this nation, it seems that a full, fair and free discussion of this subject should bring out the essential features of the difficulties encountered by shipping men in promoting their business, and that a solution should be readily found which would give us a Merchant Marine, great in proportion to the prosperity of our other industries.

R. B. HALE.

September 15th, 1909.

**M. J. Brandenstein, President M. J. Brandenstein & Co.,
Tea and Coffee Importers, San Francisco—**

I can sympathize with those of our citizens, who are engaged in the ship and shipping industry. The coastwise laws are commendable to the limit of over crowding, excessive competition, and limitations of coastwise traffic, to say nothing of the irreparable loss to our merchants and manufacturers engaged in the foreign trade.

As citizens of the United States, we are supposed to enjoy a wide stretch of personal and commercial liberty, and live in a country in which the means of life are better supplied, more rapidly produced, and better distributed, than elsewhere in the world. These latter conditions also have some limitations, our antipathy to ship subsidies, and failure to profit by the past experience of our own and foreign countries in the matter of over sea traffic, has placed a large part of our commercial liberty at the disposal of aliens.

As a close observer of ship subsidies granted to the ships of foreign countries, I firmly believe in the adoption of this policy by the United States. The experience of our firm, and knowledge of the experience of many others indicating, that if all merchants in the United States would extend their trade at the same ratio, the increased volume of foreign trade would be almost incalculable.

Isidore Zellerbach, San Francisco, Cal., President Zellerbach Paper Company—

Our business has much to do with the importation of foreign raw materials, which is far in excess of our exports of the finished product. Ship subsidy seems to be the only recourse of the United States to avoid the crisis which we are rapidly approaching. Many have profited from subsidies granted by our government to the extent that we now fear further experiments with that policy. The experience of other nations would indicate that we have yet to learn when, where and how to apply subsidies. If the policy has been abused in this country, it is evident that our shipping is in nowise responsible, or have our ships profited under that system. Admitting the susceptibilities to abuse of government subsidies, it appears unreasonable to state that the principle is void of merit, or that we are unable to apply it intelligently when stripped of its violent features, to decide such a monumental question as our full measure of the world's commerce.

Fraught with all the dangers which surround our present commercial policy, the so-called empirical system of ship subsidies should be applied as a relief measure to reconstruction of the past and building a future for an American merchant marine. The subject is one directly connected with the future, and indicates the necessity of keeping our industries and commerce in the highest state of efficiency. To neglect one at the expense of the other is highly imprudent.

In the manufacture of straw board, our firm is brought into competition with a Japanese product, landed in this country by Japanese vessels, and under a protective tariff of 35 per cent. The article is landed at a less cost than we are able to manufacture the goods here. Our trade in this article is maintained from the fact of superior facilities and efficiency of the American workmen, producing a better grade of goods than the inferior machinery and workmen of Japan. The commercial policy of Japan is largely responsible for the trade conditions on this article. We believe reverse conditions would prevail in this and many other instances with reasonable encouragement of American shipping.

Our imports of raw material are brought to this port by French steamers for \$8 per ton.

M. J. Laymance, Oakland, Cal.—

Regret that I have not made a more thorough investigation of the all important subject of ship subsidy. I feel somewhat in a similar position to the boy apprenticed to the ship painting trade, whose first experience in the business was painting the framing timbers of a large vessel with the usual dark lead colored paint. The boy's father interviewed the son daily regarding his progress. The boy finally finished the framing timbers, and was set to work painting some spans with white paint. That evening he reported to his father that he had graduated from the lead color class and was now in the white color class.

It appeals to me, however, that our government is open to a great amount of criticism, and certainly has been submitted to much ridicule in their short sighted policy of neglecting trade expansion by means of an American Merchant Marine. The tariff has worked wonders in our industrial development, and protection of the American workmen. The railroad system of the country is phenomenal. The United States has occupied an enviable position in the front rank of every important world event for 134 years, and heads the column of world powers, now marching onward to an ideal civilization. Diplomatic and economic problems have been solved in the United States that have no parallel in history. In view of all, we have been dealing with the subject of a merchant marine and permitted other and less pretentious nations to approach commercial supremacy. From my limited observation, tariff, protection, and subsidy form a trinity, which contains the commercial salvation of the United States.

Fred C. Parker, President Pacific Coast Biscuit Company, San Francisco—

Every possible effort of Congress, within the range of common sense, should be exerted for the expansion of American trade. Ship subsidy, may or may not be the method by which we shall restore the American flag on the oceans of the world. In view of the many serious questions determined by our legislatures, it appeals to the average American citizen, that after forty years dealing with the subject of a merchant marine, Congress should have settled this question.

Within the limits of our book-keeping department, we have sufficient data to convince the most skeptical of every possible encouragement to American ships. During the period of operation, by the Oceanic Steamship Company, between this port and Australia, our firm built up a large and lucrative business with that country. Immediately upon suspension of the mail subsidy to the Oceanic Company, our trade dropped fifty per cent, which is retained only from the fact that the former trade warranted our firm in adopting every reasonable suggestion of the Australian merchants, in the manufacture of goods best suited to the people of that country.

As an illustration of several features of the merchant marine question, we recently received simultaneously, two orders for large shipments of our goods to Australia, one of which was received from a broker in London, England; the other from a broker in New York. Evidently the Australian merchant was in doubt that either order would be filled, as indicated by the amount of goods ordered. Both orders were for amounts very much in excess of previous shipments made by way of the Oceanic Steamers. In the absence of direct communication from this port, the goods were shipped to Vancouver, thence to Australia in foreign bottoms. Fifty per cent of our trade in Australia now comes through London brokers. Formerly our

correspondence and shipments were direct with the merchants by way of the Oceanic steamers.

Direct communication from this port with the Orient, has enabled us to build up a splendid trade in China, making many shipments as far north as Vladivostok, also, a developing trade with Japan. We also have some trade in Alaska, which, owing to indefinite sailings from this port, is shipped via Seattle.

Having but recently arrived in this city from the middle West, I have been firmly convinced of the importance of an American merchant marine; and how little is known of this momentous question by people, who do not come in contact with existing conditions. In fact a campaign of education for trade expansion, is of greater importance on the Pacific Coast than elsewhere in the United States, where conditions are so widely different.

COMMERCIAL RESOURCES OF THE PACIFIC COAST.

(Continued from Page 4.)

San Pedro, with an outer harbor of 700 acres inside the breakwater, 300 acres having an average depth of 40 feet, 400 acres having an average of 30 feet, and 3,000 feet owned by the city in the inner harbor having an average depth of 24 feet, there are at the present time no facilities for deep ocean-going vessels. In addition to the 3,000 feet owned by the city, most of which has been leased to private parties, San Pedro owns over 20,000 feet, which includes the outer harbor frontage, on which no franchise has been granted. On the west side of the harbor the city owns 214 acres of submerged lands, with a frontage of about 8,000 feet on the outer harbor, which in time can be filled. While the city has leased much of its water front, it has reserved in one place a strip of 1,480 feet long and 200 feet deep for dock and warehouse purposes.

There are nine docks, with an aggregate length of 15,000 feet, owned and operated by private individuals. Sixty vessels can work at one time at the docks; the dockage of the inner harbor is barely sufficient for the present and rapidly increasing business. In the outer harbor there are no docks, though they can be constructed in from 30 to 40 feet of water. As conditions now exist, the larger vessels must anchor in the outer harbor and discharge by lighter a portion of their cargoes before they can enter the inner harbor. This constitutes a great drawback to the commercial requirements of San Pedro as a port.

The 1,217 steamers and 385 sailing vessels entering the port during the year 1907 brought trade from all the coast ports and a considerable amount from foreign ports. San Pedro is an important port for the shipment of oil, a distributing point for Los Angeles and the numerous world-famous products of Southern California. Los Angeles is now considering an issue of \$3,000,000 worth of bonds. Ultimately it is expected that this amount will be increased to \$10,000,000 for harbor improvements at San Pedro.

Oakland Harbor occupies a unique position among all other harbors on the Pacific Coast. The illustrations on another page show Oakland harbor in use as the recruiting station of the American merchant marine on the Pacific. The photograph, taken a few days previous to this issue, shows the harbor at a great disadvantage when used, to its not infrequent full capacity, for the purpose mentioned. The timely movement of the grain crop and absence of the fishing fleet is accountable for scarcity of

TWO VIEWS OF THE IDLE ANCHORAGE



OAKLAND HARBOR

vessels at this time. Except for shallow water and expense of dredging the approach to and harbor proper, the unlimited possibilities of Oakland Harbor are well shown in the illustration. A considerable amount of money will be required for its full development, but the means will justify the end and contribute largely to the development of the well-established industrial, commercial and agricultural foothold of Oakland and its surroundings.

Traffic for the month of August included 291 vessels, representing a tonnage of 141,269, against 85 with a tonnage of 93,418 in 1908. Lumber received for the corresponding month was 17,688,000 and 15,950,000 feet respectively.

Monterey Bay.—Monterey Bay is situated south of San Francisco, and was one of the earliest shipping points in the State. The great necessity for that port is a breakwater. Earnest effort has been made to secure the building of same by the Federal Government. It is claimed that if the breakwater was constructed in Monterey Harbor that many thousand acres of rich farming land contiguous to that port would be added to the farms in California. Captain Davis of the United States Lighthouse Service, reports: "I have been running in and out of Monterey Bay for twenty-five years. No finer anchorage is to be found on the Coast." It is thoroughly protected from the southwest winds.

Monterey Bay is in the form of a horseshoe, 18 miles



OAKLAND HARBOR

PACIFIC MERCHANT MARINE



HARBOR, CALIFORNIA

across in its widest part; for the most part has a clean sandy beach; its waters abounding with fish in great variety, and frequently visited by whales. The shoreline is marked by low sand dunes, the sand of which is eagerly sought by glass manufacturers, and valuable for many other commercial purposes. On the south side is located the historic town of Monterey, the first capital of the State. Some distance away is the famous Hotel Del Monte, known in every corner of the civilized world. On the north side of the bay is situated Santa Cruz, the most popular and well-patronized seaside resort on the Pacific Coast, with a wealth of resources in the manufacture of lime, cement and explosives, agriculture and fruits, and the renowned Santa Cruz big tree grove. Santa Cruz

must sooner or later take its place as one of California's most progressive and prosperous cities. Here are to be seen the properties of the Santa Cruz Beach Company, representing an investment in hotel and bathing establishment of over half a million dollars.

Monterey Bay affords the opportunity of security and expansion as a harbor and commercial port at a less expenditure and greater returns from the investment than any port on the Pacific.

Port Harford.—Port Harford has merit as a port of development. At present it is a prominent port for petroleum shipments. The Federal Government has taken preliminary steps towards constructing a breakwater.

Oregon, with the port of Portland, and Washington,



R, CALIFORNIA

with its extensive coast line, including the ports of Tacoma and Puget Sound, are none the less qualified to participate in the commercial prosperity of the United States than is shown on the California Coast. Each of the states mentioned have an abundance of natural resources kindred to California products, and demonstrating uniformity of interests when applied to commercial and agricultural pursuits. Discussion in detail of the resources of Oregon and Washington will appear later in these columns.

The following statistics furnished by the Department of Commerce and Labor are necessary to demonstrate the present importance and future possibilities of the ports in California.

Value of exports of domestic merchandise for the year ending June 30, 1908, in cars and other land vehicles, \$484,830; in American vessels, \$12,070,787; in foreign vessels, \$16,753,606; total \$29,309,223.

Value of imports of merchandise for the year ending June 30, 1908, in cars and other land vehicles, \$193,870; in American vessels, \$19,925,787; in foreign vessels, \$30,301,093; total imports \$50,420,750.

The imports and exports of gold and silver coin and bullion for the year 1908 were \$3,164,428 and \$5,182,657 respectively.

In 1908 there were 3,195 vessels operating on the Pacific Coast, with a gross tonnage of 943,354 tons, valued at \$80,000,000; 88,712 tons of the gross tonnage distributed between seven vessels are engaged in the foreign trade. Three of the vessels, namely, the Minnesota, 20,718 tons; Manchuria, 13,638 tons, and the Mongolia, 13,638 tons, are the three largest vessels of the American merchant marine and operate, together with the Korea and Siberia, each of about 11,280 tons, and the China, 5,000 tons, in the Oriental trade under the Ocean Mail Act of March 3, 1891.

In our frontispiece of this issue is shown the Oceanic steamship Mariposa, operating under contract with the Postoffice Department, from San Francisco to Tahiti and Marquesas Islands. The Mariposa is a 15-knot vessel of 3,158 gross tons, making ten round trips a year, and received the sum of \$37,962 for mail service in 1908. Reports received from Consul Julius D. Drelhier of Tahiti indicate that this service is about to be absorbed by French interests. The report follows:

The Union Steamship Company of New Zealand made arrangements in 1908 to start in January a new line between Wellington, having connections there for Australian ports and Tahiti, where close connection would be made every thirty-six days with the Oceanic line for San Francisco. This Sidney-Wellington line has now made its fifth trip to Tahiti, where it has made connection each time with the Mariposa for San Francisco. A considerable number of passengers have taken advantage of this connection in going from the United States to New Zealand and Australia. Some time ago the Chamber of Commerce of Noumea, the capital of the colony of New Caledonia, proposed that the French line of steamships running between Marseilles by way of Sidney to Noumea should be extended to Tahiti, and that, at the expiration of the contract with the Oceanic Steamship Company the subsidy of \$28,950 now paid should not again be voted to that company, but that aid should be given to a French line so that it might be extended to San Francisco, thus making a through line from that city, by way of Tahiti, Fiji, New Caledonia and Australia to Marseilles. The

Chamber of Commerce of Papeete has expressed itself favorable to the proposal from Noumea. In the published proceedings of the Chamber of Commerce of Papeete it is stated that the proposed extension of the French line from New Caledonia to Tahiti and thence to San Francisco has also received favorable consideration in Paris.

On this page is shown the Oceanic steamship Sierra, sister ship of the Sonoma and Ventura of the same line. This line operated between San Francisco and Australia for several years, and were paid the sum of \$16,650 per voyage by the Postoffice Department, being about one-half the amount paid by Germany and France to vessels permitted to go at a much slower speed, and paying 60 per cent less wages than was paid by the Oceanic Company to American seamen. The Oceanic liners were instrumental in increasing the trade between Australia and the United States from \$12,000,000 to \$29,000,000 per



OCEANIC S. S. SIERRA, SISTER SHIP OF THE SONOMA AND VENTURA

year. Unable to meet the exactions of the Postoffice Department at the price paid for the service for an 8,329-mile voyage from San Francisco, with stops at Hawaii, Samoa, New Zealand and Australia, the ships of the Oceanic line were withdrawn from the Australian route on March 9, 1907, and have lain idle in the harbor of San Francisco since that time.

Consul-General John P. Bray of Sidney reports that the Postmaster-General of the commonwealth has made definite arrangements for the renewal of the Vancouver mail service, operating on the Pacific between Vancouver and Australia.

The uncertainties of perpetuating the remnant of the trans-Pacific service are obvious. The Pacific Mail Steamship Company, operating five vessels between San Francisco and the Orient, via Hawaii, and an occasional steamer to the Philippines, are run mainly as feeders in the interest of the Harriman railroads. The aggressive commercial policy of Japan alone being responsible for continuation of the Pacific Mail steamship service. It is evident that the Southern Pacific Company would prefer to operate a line of steamers to the Orient at a loss, rather than relinquish control of the trans-Pacific trade to Japan, who would place their business in the open market for competition, and make terms most favorable to the Japanese. Railroad interests could then be compelled to

compete for connections with a Japanese line of steamers, and the Southern Pacific Company be forced into competition with all other transcontinental lines terminating on the Pacific. If the competition was limited to railroads in the United States the matter would be of little consequence, but Canadian and Mexican railroads are in the market and strong competitors for a share of the Oriental traffic.

The commercial and extractive resources of the Pacific Coast are of too much importance to be completely absorbed by the industrial development of the United States as a whole. The great natural wealth of the Pacific Coast is agricultural, forest and mineral products, drained by great, large navigable rivers and lakes in California, Oregon and Washington, the frequency of ports occurring on its 3,000 miles of coast line, the cost of improving which would be comparatively small, and which we may mention incidentally, has cost the Federal Government \$34,000,000 since 1852, spent mainly for fortifications, and aids to navigation principally used by foreign vessels, and the position of vantage with regard to the trade of our insular possessions, the Oriental countries and the Central and South American republics.

Conditions on the Pacific Coast are perplexing to the American people of greater industrial activity. The dissimilarity of conditions is so great that legislation in the interest of industrial development is not an argument in favor of total abandonment of legislation favoring commercial interests. To do so willfully is a breach of the time-honored and effective policy that made American industrial supremacy a certainty.

Some months ago the Matson Navigation Company made a contract with a Newport News shipbuilding firm to build a vessel for the San Francisco-Hawaii route, the contract price for the vessel being \$900,000, ready for sea on the Atlantic Coast. Wishing to obtain a cargo for the vessel to the Pacific, the Matson Company offered to take a cargo of coal for the Navy Department from the Atlantic to the Pacific for \$7 per ton. The price was refused, and the contract awarded to a foreign tramp steamer at \$3.20 a ton. The Navy Department is not bound to discriminate in disposing of contracts, as to whether they engage a vessel of American or foreign build, whether owned by American citizens or foreigners, or the build or capacity of the vessel. To frame the hypothesis, we will assume that the foreign tramp steamer is a sister ship of the Matson Navigation Company's vessel, but built in a foreign country at prevailing prices of labor and material.

Cost of Matson Company's Vessel.

Material (American)	\$495,000
Labor (American)	405,000

Total cost of vessel.....\$900,000

Cost of voyage of Matson vessel from New York to San Francisco, via Cape Horn, assuming the trip will require 120 days:

Cost of American crew, 60 men at \$30 per month...\$	7,200
Cost of American crew, maintenance 60 men at \$15 per month	3,600
Insurance, 4 months at 4 per cent per annum.....	12,000

Depreciation, 6 per cent on total value, 4 months..	18,000
Interest on investment, 4 months at 6 per cent....	18,000

Total cost of voyage of American steamer....\$58,800

Cost of Foreign Tramp Steamer.

Material (Foreign)	\$420,750
Labor (Foreign)	162,000

Total cost of vessel.....\$582,750

Cost of voyage of foreign vessel from New York to San Francisco, via Cape Horn, assuming the trip will require 120 days:

Cost of foreign crew, 60 men at \$12 per month....\$	2,880
Cost of foreign crew, maintenance 60 men at \$9 per month	2,160
Insurance, 4 months at 4 per cent per annum.....	7,770
Depreciation, 6 per cent on total value, 4 months..	11,655
Interest on investment, 4 months at 6 per cent....	11,655

Total cost of voyage of foreign vessel.....\$36,120

Summary (1 year).

Loss to American merchants, sale of material, 10 per cent	\$ 49,500
Loss to American workmen, producing material, 50 per cent	247,500
Loss to American workmen, building vessel.....	405,000
Loss to American sailors.....	21,600
Loss to American owner of vessel, 6 per cent on amount invested	54,000
Loss to American owner, depreciation, 3 per cent on amount invested	27,000
Loss to American owner, \$40,800 + \$24,465 divided by 2 at 10 per cent.....	32,732
Loss to American merchants incidental to upkeep and operation, approximately.....	15,000
Loss to American merchants and labor, return voyage of foreign vessel.....	60,000
	<hr/> \$912,332

Assuming now that each vessel would carry 5,000 tons and make three trips per year:

American vessel, 15,000 tons at \$7.....	\$105,000
Foreign vessel, 15,000 tons at \$3.20.....	48,000

Difference

Thus it will be seen that the United States, in this transaction, made a saving of \$57,000 and kept from American merchants and labor the sum of \$912,332 to build a navy, maintained at an expense of \$130,000,000 per year, and to remove the American merchant marine from the oceans of the world.

Correspondence With the Department of State.

It is requested by the Department of State of the United States, that all communications upon official matters forwarded to that department, be addressed to The Honorable The Secretary of State, Washington, D. C.

The P. M. S. S. Manchuria arrived at San Francisco from Honolulu recently in five days and four hours, the best time ever made between these ports.

CHARTER MARKET.

The slowness of the charter market for the last two weeks is explained by the fact that ship brokers and exporters of wheat from Puget Sound ports are looking for a break in the rates to the United Kingdom and the continent, as the tonnage which will be available to transport the grain this winter will include over thirty steamers. The steam craft have been attracted to the Sound by a rate of 30 shillings for grain, and it is very probable that unless some of the steamers are diverted to other trades that the bid for homeward freight will be so strong that the foreign steamship owners will have to content themselves with a discount on the 30-shilling rate.

There is also some uncertainty as to what effect on wheat charters the arrival of the government foreign coal carriers will have on the market. Several of these steamers have been fixed for wheat prior to arrival at considerable less than 30s. Shippers look for the lumber business to take care of the majority of the coal carriers, as the lumber export trade to both Australia and Africa is developing a better tendency.

Exports of grain are slow in starting this year, due largely to the short receipts at Portland and on Puget Sound. The month of September will close with the departure of but six cargoes. The month of October will be the banner month for wheat cargoes.

Sailing tonnage will not participate in the export trade as was first thought at the beginning of the season. The scarcity of that class of tonnage caused the upward tendency in freight rates to the United Kingdom. The prospect of a decided shortage in sail tonnage and a resulting higher rate has caused sail owners to hold off temporarily.

The following rates on lumber are reported: San Francisco, \$3.25; San Pedro, \$3.75; San Diego, \$3.75; other Southern California ports, \$3.75; Hawaiian Islands, \$5; Guaymas, \$5; Santa Rosalia, \$6; Sydney, 31s 3d; Melbourne or Adelaide, 36s 3d; Port Pirie, 35s; Freemantle, 40s; Hong Kong, 33s; Shanghai, 30s; Kiao-chow or Weihai-wei, 30s; Port Arthur, 30s; Taku or Newchwang, 30s; Kobe or Yokohama or Nagasaki, 30s; Valparaiso f. o. (2-6 less direct), 41s 3d@42s 6d; Callao f. o. (2-6 less direct), 38s 9d@40s; Cape Town, 51s 3d; other South African ports, 51s 3d.

Coastwise charters reported include: Str. Jim Butler, Tacoma to San Pedro, \$3.75; Str. J. B. Stetson, Tacoma to San Pedro, \$3.75; Str. Cascade, Grays Harbor to San Francisco, \$3.25; Str. Rainier, Puget Sound to San Francisco, \$3.25.

British schooner Drummair, railroad supplies, San Quentin, Mexico to Manzanilla. British steamer Oswestry, lumber and merchandise, Puget Sound to West Coast. Japanese steamer Yawata Maru, lumber, Portland to Nanking, China, at 28s 9d. French bark Babin Chevaque, wheat, Portland to U. K., Havana, Antwerp or Denmark, at 27s 6d. French bark Boieldieu, barley, Portland to U. K., Havana, Antwerp or Denmark, at 23s 9d. French bark Francois d'Amboise, barley, Portland to U. K., Havana, Antwerp or Denmark, at 23s 9d. French bark Francois d'Amboise, barley, Portland to U. K., Havana, Antwerp or Denmark, at 23s 9d. French bark

Genevieve Molinos, wheat, Puget Sound to U. K., Havana, Antwerp or Denmark, at 27s 9d. British schooner G. U. Wolff, lumber, Hastings Mill to Mt. Natal or Delagoa Bay, at 52s 6d. American steamer San Mateo, merchandise, Puget Sound to New York. British schooner Strathgryfe, barley, Puget Sound to U. K., Havana, Antwerp or Denmark, at 23s 9d. French schooner Ville de Mulhouse, barley, U. K., Havana, Antwerp or Denmark, at 23s 9d. British steamer Willisden, lumber, Eureka to Melbourne or Adelaide, at 23s 9d. French bark Breun, barley, San Francisco to Europe, at 23s 9d. British steamer Floriston, wheat, Puget Sound to Europe at 28s 9d. Barkentine Makaweli, lumber, Puget Sound to Melbourne, at 36s 3d. Schooner Cecelia Sudden, lumber, Grays Harbor to Guaymas. British steamer Janeta, wheat, Puget Sound to U. K., Havana, Antwerp or Denmark, at 30s. British steamer Melville Dollar, lumber, Albion to Guaymas. American steamer Casco, tan bark, Shelter Cove, Cal., to Portland and return to San Francisco with wheat and lumber. British steamers Foxley and Waddon, steel rails, New York to Vancouver, B. C. British steamer Capt. Finisterre, wheat, Portland to U. K. British steamer Harcourt, lumber, San Francisco and Portland to Gualdton, at 43s 9d.

DROUGHT IN SHANTUNG, CHINA.

Consul Wilbur T. Gracey, of Tsingtau, reports that in consequence of the continued drought there is not one-eighth of an ordinary wheat crop in many parts of the Province of Shantung, and, worse still, nothing was sown up to June 1 to secure an autumn crop. The fierce hot winds, which have been very constant, give no promise of abatement, and the people are becoming hopeless. To add to the acuteness of the situation, locusts have appeared in enormous swarms in southern Shantung, and are devastating everything in their course. The governor of the Province has prohibited the export of grain, and has set apart a sum for the purchase of grain from outside sources. Shantung is an agricultural province, with a population of over 38,000,000.

EXPORTS FROM HAMBURG TO THE PHILIPPINES.

Consul-General Robert P. Skinner reports that the declared exports at Hamburg for the Philippines during the quarter ended March 31, 1909, were valued at \$293,000, of which the larger items, such as cotton goods (\$93,141), manufactures of iron and steel (\$33,000), small metal ware (\$18,000), provisions, glassware, etc., represented articles which American exporters are particularly qualified to provide. The consul-general suggests that American exporters without representation in the Philippines might open up trade through Hamburg houses, a list of which is on file in the Bureau of Manufactures.

MARKET FOR AMERICAN HAY IN ENGLAND.

Consul Felix S. S. Johnson, writing from Bergen, Norway, says that according to reports from different parts of Great Britain, the hay crop will be small and the quality poor. Prices are steadily advancing and in mid-August were as follows: Best hay, \$18.25 to \$20.45 per ton; useful, \$12.15 to \$18.25 per ton; prairie clover, \$18.25 to \$20.70 per ton; best mixture, \$18.25 to \$20.70 per ton; second class, \$14.60 to \$18.25 per ton. Importations into the United Kingdom from Europe are forbidden, except from Norway, Sweden, and Denmark. The prohibition against the importation of American hay has been raised.

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The remarkable progress of the United States has flowed to the different sections and states thereof, from sources so unlike, that the development of the nation stands fourth unique in the world's history.

Contained within its 3,026,789 square miles of area, the resources are widely spread. The one staple source of the country for many years consisted solely of agriculture, to the products and profits of which, became possible the development of other resources made necessary by the progress of civilization. However, the general appearance and resources of the country differed; the extractive resources, past, present and future, whether consumed at home or abroad, is the base of our prosperity. During the period of greatest oppression, the United States acquired the commercial conquest of the world, by methods of merit unknown to history, confined to our own limited sphere the efforts employed would have been futile; interchange of commodities and communication with the outer world, were essentially, material factors of our success.

Each period in American history has required a corresponding change suited to existing conditions. The complicated and indeterminate methods of the present day, would not be applied to the agricultural era in this country; still, with less resources and legislation, with the greatest doubts of ultimate success, torn apart by internal strife, the credit of the country disturbed and uncertain, the envy of commercial powers of the world, we remained steadfast to our extractive resources, and surpassed all rivals for the world's commerce.

Sobered, both by calamity and success, the country emerged from the agricultural period and entered the industrial era, none the less remarkable in achievement; still, depending upon agriculture, this industry was forced to the background, and into sections which kept pace

with the onward march of science, and putting to shame the primitive methods and results of previous efforts and sections of the United States and the world at large. To what extent the present agricultural sections of the country are indebted to the industrial sections, is confined solely to the agricultural requirements of the industrial sections, and in nowise to improved methods from outside sources. The present agricultural sections have demonstrated their superior qualities over former sections in fertility of soil and climate by crops known in no other time or section of the world.

During the early agricultural struggles of the United States, every possible protection was granted to the industry; ships were built, subsidized and protected, and communication maintained with foreign nations, made manifest and imperatively necessary as an output for the products. Given an equal chance, or the protection of earlier times, it is not going too far to claim the superior advantages of the present agricultural states of the Union, and their ability to maintain and perpetuate the commercial supremacy of the United States.

The industrial development of a country is an underissue, the standard being established in America. The principle involved, necessarily capital, made possible and successful from previous agricultural profits. Concentration of population is a natural result of industrial development. Farming as a further natural result assumed second place, and by a minority of the population and wealth of the country. Foreign countries, who had previously sought our agricultural products, were neglected, our ships disappeared from the sea; foreign intercourse was left to the option of alien messengers, who were welcome to purchase our industrial products, and surplus farm products, the latter fast dwindling to less than the requirements of our people. The result is obvious, both, as applied to industrial and agricultural products.

Foreign countries were not slow to take advantage of these conditions, our industrial standard was copied, of necessity foreign agricultural industries were developed; and, although, statistics prove a material increase in the wealth, population and commerce of the United States for the past decade. Foreign capital is reaping a richer harvest from American enterprise than we are willing to admit, or statistics are able to prove. It is true, we require capital and accept it irrespective of the source; and, when required for legitimate business purposes, is a commercial prerogative. But, when wantonly used at the rate of \$1,254,000 per annum, paid to foreign vessels for carrying the United States mails; \$3,000,000 per annum paid to foreign vessels for the transportation of American goods, and that our naval vessels are supplied in both home and foreign ports, with coal delivered directly aboard from the holds of foreign tramp steamers; the latter transaction illustrating a policy of the government, the use of which is denied by law to a private citizen; the necessity of fostering the ship and shipping industries of the country indicates the weakest part of our otherwise chain of a world's power.

Ship subsidies has become the nightmare of the American people, not from the lessons taught by subsidies granted to American ships—in fact, experience of the past would have the reverse effect. The present ship subsidy policy of all foreign governments demonstrates the wisdom of subsidies properly protected by law. The sonambulistic class of our citizens, who patronize the nightmare of "ship subsidies," are those who have be-

come powerful from "subsidies." (The distinction between ship subsidies, and subsidies, should be carefully noted.)

The report of the Second Assistant Postmaster-General of the United States, for the year ending June 30, 1908, shows that railroads in the United States were paid \$49,404,763 for transporting the mails within the territory of the United States. These figures show a decrease for the same service rendered for the year 1907, when the amount paid was \$51,008,111, the reduction being caused by the rate of pay established under the Act of March 2, 1907. The report shows the amount paid to American and foreign vessels for the transportation of the foreign mail for the year ending June 30, 1908, as follows:

	American	Foreign
Trans-Atlantic Service.....	\$737,332.10	
Trans-Atlantic Service.....		\$817,718.22
Trans-Pacific Service.....	109,876.03	
Trans-Pacific Service.....		63,091.36
Miscellaneous Service.....	550,584.00	
Miscellaneous Service.....		121,676.38
Trans-Atlantic " (now contract)		192,345.85
Miscellaneous " " 43,302.24		
Miscellaneous " " "		59,359.69
	\$1,441,094.37	\$1,254,191.50

The relation of these figures to subsidies is not recognized when given as amounts paid for the transportation of the mail, however, they are so closely allied that it is impossible to separate them, a further analysis demonstrating that they are identical.

Taken as an average for the past eight years, the United States has paid the railroads \$44,815,764.50 per year for transportation of the mails, as against \$2,695,285.87 per year paid to the shipping industry for our entire mail service with the outer world, as previously shown \$1,254,191.50 of the latter amount being paid to foreign ships. The difference between subsidy and ship subsidy in this case is vastly different. A greater distinction would develop, if statistics were available, to show the amount of land owned by the railroads, granted to them by the government as a subsidy for building the roads.

PACIFIC COAST PORTS NOTES.

PORT OF SAN FRANCISCO

Tonnage Tax on the Bark Simla to be Returned.—

Judge De Haven of the United States District Court has ordered the return of a tax amounting to \$2,132.10 levied by the Collector of Customs of San Francisco on the foreign bark Simla. A tax of \$1.00 per ton was assessed under the classification of an "undocumented vessel," and the light money tax makes up the total which will be remitted.

Eureka Construction Company Wins Suit Against British Ship Fleetwood.—United States District Court Judge De Haven gave judgment for the plaintiff in the case of the Eureka Construction Company against the British ship Fleetwood. The Fleetwood brought a cargo of cement to San Francisco consigned to the libellant. The cargo reached the city shortly after the fire and owing to the unsettled conditions prevailing the cement could not be removed from the wharf as fast as it was discharged. Although it was not raining at the time of

discharging, rain set in shortly after and the cement was ruined. The ship was held guilty of negligence in having placed the cement on an unsheltered wharf.

Steamer State of California for Eureka-San Francisco Run.—The Pacific Coast Steamship Company has placed the steamer State of California on the San Francisco-Eureka run in the place of the steamer City of Topeka.

New Steamship Company for San Francisco.—Articles of incorporation have been filed by the Rainier Company and according to the incorporation papers the company will own steamers and engage in a general steamship business.

The paid-up capital of the new organization is \$68,000 and of this amount Thomas W. Pollard subscribed \$36,000, A. W. Deming, \$2,000; Clara J. Deming, \$8,000; L. Hansen, \$8,000, and W. S. Pollard, \$2,000.

The same parties have incorporated the Tellac Company, which will act in conjunction with the foregoing. The capital is \$82,500, all of which is subscribed.

Oakland's Traffic Shows Steady Increase.—The total number of vessels that docked in Oakland during the month of August, as reported by the Oakland Chamber of Commerce, were 291, with a total tonnage of 141,269. Segregated, they were as follows: Steamers, 242; schooners, 28; lighters, 6; ships, 5; barks, 5; barkentines, 4, and scows 1.

The number of feet of lumber brought in by these vessels amounted to 17,688,000 feet of lumber.

The following shows an increase of forty-two in vessels and 74,650 in tonnage over last month.

Collector of Customs' Decision Upheld by Department in Steamer Marshfield Case.—Deputy Collector of Customs N. S. Farley has received the following decision from the Secretary of Commerce and Labor in the case of the steamer Marshfield, which was navigated for a period of five days after her certificate of inspection had expired:

"The department has received your letter of the 7th instant, transmitting the application of C. A. Hooper, managing owner, for relief from a penalty of \$500 incurred in the case of the steamer Marshfield, for violation of Section 4421 R. S., in that the vessel was navigated at least five days after her certificate of inspection had expired.

"It appears from the papers that the vessel was at San Diego. As the certificate was about to expire the applicant wired the master to call at San Francisco for inspection. The master disregarded these instructions and was sent by the consignee of the cargo to Needle Rock to load for San Pedro and San Diego. On her way to San Pedro she ran short of fuel and put into your port about 7:30 P. M. As it was after office hours, the master did not get into communication with the applicant, who claims that he did not know the vessel was in port.

"The fact that the certificate of inspection of this vessel had expired was within the knowledge of the master and the owner. She entered your port five days after its expiration, but apparently no effort was made to have her reinspected. The department perceives no mitigating circumstances which would warrant its intervention in this case.

Respectfully,

"ORMSBY McHARG, Acting Secretary."

Hammond Lumber Company Buys Steamer.—The Hammond Lumber Company has purchased from Kelso parties the steamer Mystic, which was but recently built

in Astoria, and she will be used for towing log rafts exclusively.

Portland.

Portland and Asiatic Steamship Company Will Maintain Twenty-Day Schedule.—The Portland and Asiatic Steamship Company has prepared a schedule showing the arrival at Portland and the departure for the East of each of the liners. The Selja will arrive on September 20th and will depart again on the 30th. The Henrik Ibsen will arrive on October 5th and she will sail for Hongkong and way ports on October 15th. The Rygja is scheduled for arrival on October 25th, sailing outward on November 5th. Upon her arrival the Norwegian steamer Hercules, which is now on the way to Puget Sound with a cargo of coal, will be turned over to the Portland and Asiatic line. The company will then re-establish the twenty-day schedule out of Portland to the Orient. Owing to the poor freight movement both ways on the Pacific the last six months, this service has been badly demoralized.

River Steamer Vulcan Damaged by Fire.—While tied up at the Supple shipyard for repairs flames broke out from an undiscovered cause on the steamer Vulcan, the entire upper works of the boat being destroyed. The damage will amount to about \$3,500. The Vulcan was burned to the water's edge a year ago and was but recently rebuilt.

Tug Kun to Be Raised.—Salvage operations have begun on the tug Kun, which was sunk in a collision with the steamer Geo. W. Elder, and it is expected that she can be placed in commission for a nominal sum. The Columbia Contract Company has the contract for the salvage work.

Portland's Commerce for August.—Collections on imports at Portland in August totaled \$59,902.94, according to a report of the transactions at the custom house for the month, just completed by Collector of Customs Malcolm. The report is as follows: Vessels entered from foreign ports, 4; vessels entered from domestic ports, 73; vessels cleared for domestic ports, 65; entries of merchandise for duty, 110; entries of merchandise free of duty, 56.

Kerr, Gifford & Co. Lose Case in Demurrage Claim.—In the matter of suit by demurrage, filed by the owners of the German steamship Tiberious, against Kerr, Gifford & Co., Judge Wolverton of the United States District Court ruled as follows:

"Rejecting November 23 as a rainy day and the 28th as a holiday, Thanksgiving, the ship was detained seven days beyond her stipulated lay days, for which the libellant should recover the sum of \$1,531.74, with interest, from December 6, 1907, at 6 per cent per annum, and such will be the order of the court."

Seattle.

Tide of Traffic Turning from Seattle.—Passenger traffic moving toward Seattle is showing a marked decrease, and the next few weeks will show conditions reversed. Many Californians who have spent the summer on Puget Sound are now beginning to secure passage south. Steamships expect, however, to carry many thousands of passengers to Seattle during the last weeks of the fair.

New Steamer for Seattle-Vancouver Run.—MacKenzie Bros. of Vancouver, B. C., have purchased the British steamer Puri of Bombay, and she will be operated between Seattle and Vancouver in opposition to the Cana-

dian Pacific. The Puri is a twin-screw vessel, registering 643 tons net, and was built at Dundee in 1895. She has accommodations for 1,500 passengers, and a speed of sixteen knots.

The Commerce of Puget Sound.—Harbormaster Spaulding's report of the business of this port for August discloses that the total value of domestic imports last month was \$2,426,237, as compared with \$2,962,231 last year. This decrease of about \$500,000 is made up for by the increase of domestic exports, which last month amounted to \$5,649,499, as compared with \$5,053,682 last year. There is a decrease in the value of foreign imports also, amounting to about \$700,000, the total last month being \$2,085,683 vs. \$2,802,499 last year. The foreign exports also show a decrease of about \$60,000, the total last month being \$794,081, and last year \$811,602.

Steamer Ohio Turned Over to Underwriters.—The Alaska Steamship Company has abandoned the wrecked steamer Ohio, and she will be turned over to the underwriters. It will involve too much expense to raise her, and the underwriters will probably sell her for junk. The stern of the steamer lies in 90 feet of water, while her bow is buried in a mud bank.

Victoria, B. C.

Excite the Ire of Canadians.—The Japanese engaged in sealing are being made the subject of many complaints to Governor-General Grey by the Canadians. Under a regulation entered into by the different governments, whose subjects engage in sealing, the sealers are not allowed to hunt within sixty miles of the rookeries, and even then only with spears. The Japanese government, however, is not a party of the agreement, and Japanese engaged in sealing come within three miles of the rookeries and use firearms.

Blue Funnel Line Inaugurates New Service.—The British steamer Titan of the Blue Funnel line, sailed September 8 for Manila and other Philippine ports, thereby inaugurating a new service between Puget Sound and the Philippine Islands. Formerly the steamers of the line called at Manila while enroute from Liverpool to Puget Sound, but with the sailing of the Titan service will begin on the westward passage. The route will be from Puget Sound ports to Hongkong, then Manila, Singapore, Marseilles, London, Liverpool and Glasgow.

New Steamship Line Planned.—A new steamship company contemplates placing a line of steamers on the run between this coast and the old country. The company in question is Chapman & Sons of Newcastle-on-Tyne, owners of the steamer Floristen, at present at Esquimalt. Captain Dunn, in command of that vessel, says his firm is seriously considering placing vessels on a regular run round South America and coming as far north as these waters.

Tacoma.

The Commerce of Tacoma for August.—The report of Harbormaster Clift shows that imports and exports, foreign and coastwise, at Tacoma during August were valued at \$4,531,977. This is an enormous increase over July, and also over August, 1908. The gain over the business of the port for July is \$2,208,229, or nearly 100 per cent.

Tacoma is making inroads into the Alaska business from the Sound. During August, 1908, the shipments to the north were valued at \$29,000, while last month they reached \$169,675.

Fall wheat shipments have commenced. To foreign ports during August Tacoma shipped 43,288 bushels, val-

ued at \$42,422, and coastwise 30,364 bushels, valued at \$30,472.

Flour was another important item in the export trade. To foreign ports were sent 26,795 barrels, valued at \$120,-860, and coastwise, 15,125 barrels, valued at \$76,773.

Jebsen & Ostrand Company Now Member of West Indies Coffee Conference.—The West Indies steamship coffee conference combination has admitted to membership Jebsen & Ostrand, operating steamers from Tacoma to Mexico. This combination controls the coffee shipped from Labradore and Guatamala, and up until the present time the privilege of carrying coffee has been extended to the Kosmos line and the Pacific Mail Steamship Company. The Jebsen & Ostrand steamers will now carry their share of coffee cargoes.

Marshfield

Steamer Bandon Badly Damaged.—From the report of the diver who investigated the injury done to the vessel, it is likely that the steam schooner Bandon, which struck on the Coquille River bar recently, will have to be practically rebuilt. Her keel, skey, rudder, and one of the propellers, were lost, and two large holes and several small ones were stove in her bottom and sides. Preparations are being made to tow her to San Francisco, but it is doubtful whether the trip can be made with an assurance of safety, as she now lies with the water up to the top of the main sail.

Commissioner of Navigation Chamberlain has decided that all powerboats between fifteen and sixteen tons hereafter shall be considered as fifteen-ton craft.

Powerboats operating in and about San Francisco Bay to the number of thirty will not, by this decision, be subject to the inspection laws. If the launches were subservient to the inspection laws a licensed pilot and engineers would have to be carried, and the boat equipped with fire buckets, lifeboats and other equipment of a licensed boat.

SHIPBUILDING NOTES

Union Iron Works

Secured the contract for repair to the U. S. G. M. D. steamer General Mifflin. The repairs include drydocking, painting and a general overhauling of engine, boiler and hull. The contract was awarded on a bid of \$2,750.

S. S. Mariposa was drydocked for engine, boiler, hull repairs and painting.

S. S. W. S. Porter was drydocked for engine, boiler, and hull repairs.

S. S. Helene was drydocked and painted.

S. S. City of Sydney received engine, boiler and hull repairs. One propeller blade was made for port wheel. When the City of Sydney is next in drydock a cast iron stool for sea valve will be fitted in shaft tunnel.

The contract for the renewing of rivets and top bolts on the British steamer Winnebago is completed.

S. S. Rose City was drydocked for engine, boiler and hull repairs.

The S. S. Asuncion was drydocked for general repairs to tail shaft and rudder.

S. S. City of Para was placed on Hunters' Point drydock for miscellaneous repairs.

S. S. Elizabeth was at works to receive a new tailshaft.

The fireboat David Seannell is on drydock for the Risdon Iron Works.

At Moore & Scott Ship Yard, Oakland

The sternwheel steamer Telephone brought from Portland by the Western Pacific Railway Company, is being rapidly altered to run in the passenger service of the

Western Pacific Company, until they can secure a larger ferry. The Telephone is the fastest vessel on the Pacific Coast. She ran for years between Portland and Astoria, and makes easily twenty-six miles per hour.

Plans and specifications are out for the Western Pacific's new ferryboat, to be somewhat similar to those of the Key Route. The specifications call for a vessel 231 feet long, with a speed greater than that of the Key Route vessels.

The new tug Virgil G. Bogue, built by the Craig Shipbuilding Company at Long Beach, for the Western Pacific, was brought up, and arrived here last Sunday; but, on account of a leak, the railroad officials have refused to accept it and she is now docked for examination.

American-Hawaiian Steamship Company to Build Passenger Steamer.—The American-Hawaiian Steamship Company will, in the near future, award the contract for the construction of a 6,000-ton steel passenger steamer. The steamer will be placed on the passenger run between the Hawaiian Islands and San Francisco. The American-Hawaiian Steamship Company was induced to enter the passenger trade between San Francisco and the Hawaiian Islands through the earnest solicitation of the commercial bodies of the islands. The steamship company submitted a proposition whereby a holding company with a capitalization of \$1,000,000 be formed, the majority of the stock being subscribed by Hawaiian parties.

Ensenada Line of San Diego Propose to Build Steamer.—The Craig Shipbuilding Company of Long Beach is making arrangements with the Ensenada line to build a small boat to replace the steamer St. Denis on the Ensenada run. The tug Virgil Bogue, just completed by the Craig Company, was thoroughly inspected by the Ensenada line officials, and if a satisfactory report is made, the contract will be let to the Craig Company.

The Spreckles Warehouse Company also inspected the Bogue with the object of awarding a contract for the construction of a large steamer to be operated in the Mexican coastwise trade.

Alaska Steamship Company Plans New Passenger and Freight Steamer.—A marine architect of New York is in Seattle preparing plans for a new passenger and freight steamer for the Alaska Steamship Company. The steamer will cost \$500,000, and is the first of possibly two or three others. She will be 350 feet long, with a speed of sixteen knots. Accommodations will be made for 250 cabin and 400 steerage passengers. The contract will be awarded some time in the Fall.

Steamer Klamath Launched This Month.—The McCormick Company's new steam schooner Klamath, which is nearing completion at the Bendixen Company yard at Eureka, will be launched September 29. The vessel cost \$140,000, and \$70,000 of this amount was subscribed by Eureka people.

AUGUST TONNAGE

Vessels passing through the Golden Gate, San Francisco, during the month of August numbered 945.

Ferryboats running on regular routes are not required to keep log books, according to a decision of the United States Inspection Service.

Two New River Craft for San Francisco Bay.—The California Transportation Company has awarded the contract for the construction of two new river stern-wheelers, to Schultze, Robertson & Schultze of South San Francisco. The boat will be 220 feet in length and larger than either the J. D. Peters or T. C. Walker.

MARINE INTELLIGENCE

NOTICE TO MARINERS

The following affects the List of Lights and Fog Signals, Pacific Coast, 1908, page 72, No. 332 (List of Lights, Buoys and Daymarks, Twelfth Lighthouse Subdistrict, 1909, page 14): Hawaiian Islands, Makanalua peninsula—Kalawao-Molokai light station to be established. About September 1, 1909, there will be established on Kalawao, northerly part of the peninsula of Makanalua, making off from the northerly shore of the island of Molokai, nearly midway of the length of the island and about one and a third miles to the north and east of the Kalapapa leper settlement, a second order light, flashing white every 20 seconds. The light will be 213 feet above the water and 120 feet above the ground, shown from an octagonal, pyramidal concrete structure, surmounted by a black cylindrical lantern, and should be visible about 24 miles in clear weather, the observer's eye 15 feet above the water. The approximate geographic position of the light, as taken from coast and geodetic survey chart No. 4100, will be: Latitude, 21:12:20 north; longitude, 156:58:25 west.

Mokapu islet—110 degrees 45 minutes, true (SE by E 3-16 E mag.), 3 miles.

Oakia Islet—121 degrees 20 minutes, true (SE 5-16 E mag.), 3 miles.

Kalapapa light—335 degrees 40 minutes, true (N by W ¼ W. mag.), quarter mile.

There is a concrete oil-house about a tenth mile northwesterly, a concrete water tank about 90 feet southwesterly and a keeper's dwelling about a tenth mile westerly from the light.

On the same date Makanalua light station, a fixed red lens lantern light exhibited from a mast, located about 2,000 feet to the northward of the new lighthouse tower, will be permanently discontinued. By order of the lighthouse board.

V. S. HOUSTON, Lieutenant, U. S. N.

Assistant to the Inspector, Twelfth Lighthouse District.

The following affects the List of Lights, Buoys and Daymarks, Twelfth Lighthouse Subdistrict, 1909, page 18:

Hawaiian Islands, Oahu Island—Pearl Harbor—Peninsula point shoal buoy, 17, a third-class spar, broken from its moorings August 25, will be replaced as soon as practicable. By order of the lighthouse board.

V. S. HOUSTON, Lieutenant, U. S. N.

Assistant to the Inspector, Twelfth Lighthouse District.

TIDE TABLE TO WEEK ENDING SATURDAY, SEPTEMBER 18

Golden Gate Entrance to San Francisco Bay.

SEPTEMBER

Moon	Day of			Time and Height of High and Low Water.							
	W.	Mo.	T.	H.	T.	H.	T.	H.	T.	H.	
1st quar	Sun	19	2:40	4.1	7:50	2.3	13:48	4.9	20:45	1.1	
	M	20	3:47	3.8	8:23	2.7	14:19	4.9	21:40	0.8	
	Tu	21	5:13	3.7	9:10	3.2	14:57	4.9	22:38	0.8	
	W	22	6:41	3.8	10:12	3.3	15:57	4.9	23:42	0.5	
	Th	23	7:43	4.2	11:30	3.4	17:18	5.0			
	F	24	0:45	0.3	8:28	4.4	12:47	3.4	18:40	5.1	
	S	25	1:43	0.0	9:04	4.7	13:54	3.0	19:52	5.4	
	Sun	26	2:30	0.2	9:48	5.0	14:51	2.5	20:53	5.6	
	M	27	3:22	0.2	10:10	5.3	15:42	1.8	21:49	5.7	
	Tu	28	4:08	1.0	10:45	5.5	16:30	1.2	22:44	5.8	
Full	W	29	4:57	0.2	11:18	5.7	17:20	0.7	23:40	5.7	
	Th	30	5:40	0.6	11:53	5.7	18:07	0.4			
OCTOBER											
New	F	1	0:38	5.5	6:20	1.1	12:30	5.7	18:53	0.1	
	S	2	1:59	5.2	7:03	1.7	13:10	5.7	19:47	0.1	
	Sun	3	2:47	4.8	7:48	2.3	13:50	5.6	20:47	0.1	
	M	4	4:07	4.5	8:38	2.9	14:40	5.5	21:53	0.0	
	Tu	5	5:40	4.3	9:40	3.2	15:37	5.3	23:00	0.0	
	W	6	6:45	4.3	10:58	3.5	16:47	5.1			
	Th	7	0:19	0.1	7:47	4.7	12:30	3.5	18:05	5.0	
	F	8	1:14	0.1	8:45	4.8	13:47	3.2	19:18	4.9	
	S	9	2:06	0.2	9:14	5.1	14:43	2.8	20:20	5.0	
	Sun	10	2:48	0.4	9:47	5.3	15:26	2.4	21:17	5.0	
New	M	11	3:27	0.6	10:14	5.3	16:03	1.9	22:07	5.0	
	Tu	12	4:07	0.9	10:42	5.4	16:38	1.6	22:50	4.9	
	W	13	4:40	1.2	11:04	5.2	17:10	1.3	23:32	4.9	
	Th	14	5:08	1.5	11:23	5.3	17:38	1.0			
	F	15	0:16	4.8	5:38	1.8	11:45	5.2	18:10	0.7	
	S	16	1:00	4.6	6:07	2.2	12:07	5.2	18:48	0.5	
	Sun	17	1:50	4.3	6:38	2.6	12:28	5.2	19:40	0.4	

Time used, Pacific Standard, 120th Meridian W.
 Oh—midnight, 12h—noon, less than 12—forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
 N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator.
 A. P.—Moon in apogee or perigee.

The following affects the List of Lights and Fog Signals, Pacific Coast, 1908, No. 334, page 72; List of Lights, Buoys and Daymarks, Twelfth Lighthouse Subdistrict, 1909, page 16:

Hawaiian Islands, Oahu, southerly coast—Diamond Head light station, increase in intensity of light—On or about September 1 the intensity of this light will be increased by change in illuminant from oil to incandescent oil vapor. By order of the lighthouse board.

V. S. HOUSTON, Lieutenant, U. S. N.

Assistant to the Inspector, Twelfth Lighthouse District.

Captain Johnson of the steamer Ohio reports to the branch hydrographic office at Port Townsend that it is not safe to pass within a quarter of a mile of Sarah Island, British Columbia, when steep point bears about NE by N., as it was in this vicinity that the Ohio struck a rock or ledge.

Captain H. F. Beecher makes the following supplementary report regarding Murderers cove, Admiralty Island, Alaska: The rock struck by the steam whaler Tyee Jr. is about 1,200 feet south (true) from Bartlett point. Another rock, which is bare at half tide, lies east (true) from the north end of the island, of which the south end is Bartlett point, distant about 700 feet.

In the descriptions of the dangers surrounding Yasha Island in the notice to mariners dated July 24, read feet for cables.

J. C. BURNETT,

Lieutenant, U. S. N., in charge.

H. M. Delehanty of Aberdeen, Wash., reports to the branch hydrographic office at Port Townsend that in the new channel between Hoquiam and Old Grays Harbor city dock a shoal has appeared, running from a point between beacons Nos. 6 and 8 for a distance of 2,600 feet toward No. 6. The shallowest point shows but 10 feet at mean low water, deepening to 15 feet. In making this passage navigators are cautioned to keep to the southward of the channel in order to avoid this obstruction, although it is not dangerous, being of soft mud.

J. C. BURNETT,

Lieutenant, U. S. N., in charge.

Oregon and Washington—Columbia River entrance—Increased

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HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	16	Sept. 10	Bar buoys now right in channel.
Willapa Bay	27	Sept. 5	No change in channel, 16 ft. M. L. W. in channel to South Bend
Columbia River	25	Aug. 31	
Nehalem River	6	Aug. 13	Bar buoy 500 feet north of bar; channel shifting south.
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	9	Aug. 10	Channel shifting to south.
Siuslaw River	5½	Aug. 4	
Umpqua River	9	Sept. 1	Keep 300 to 400 feet north of inner harbor buoy.
Coos Bay	17	Aug. 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	8	Sept. 4	Channel well to N. sand spit, makings south from end N. jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on bar.
Klamath River		Aug. 27	Very shallow; mouth of river almost closed
Humboldt Bay	21	Sept. 1	21 ft. in straight channel 20 ft. in channel.
San Pedro Bay	19	Aug. 6	No change in channel.
San Diego Bay	25	July 8	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

depth on bar. From a survey of the bar at the entrance to the Columbia River, made by the army engineers in June, 1909, it appears that a depth of 26 feet can be carried through the south channel at the mean of the lower low waters.

Alaska—Tongass Narrows—Channel Island—Reef reported northwestward. Captain J. Johnson of steamship Ohio reports on July 14, 1909, at 4:35 a. m., his vessel, drawing 24½ feet of water, struck and passed over a rocky ledge lying from one-half to one-quarter of a mile north 60 degrees 45 minutes west from Channel Island, Tongass Narrows, Alaska.

Captain Johnson estimates the position of the reef on C. S. Chart No. 8094 to be between the soundings 12 and 36. He states that the vessel's course was changed abreast of Channel Island, and she had run about two minutes, after steadying on the new course, for Rosa Reef, when she struck.

On his return trip the captain took soundings in this vicinity, but was unable to locate the rock in the short time at his disposal. He reports, however, finding nine fathoms between the soundings 12 and 17, off the western end of Channel Island.

Approximate position of Channel Island, latitude 55 degrees 23 minutes 38 seconds north, longitude 131 degrees 45 minutes 50 seconds west.

Alaska—Pearl Strait—Fairway Island Light—Limits of red sector. Notice is given that Fairway Island Light, Peril Strait, Alaska, shows red over an arc 42 degrees 20 minutes, between the bearings south 18 degrees west and south 60 degrees 20 minutes west. Approximate position, latitude 57 degrees 26 minutes 32 seconds north, longitude 134 degrees 51 minutes 39 seconds west.

Office of Inspector, Twelfth Lighthouse District, San Francisco, California, September 16, 1909.—San Pedro Harbor, California—(List of Lights and Fog Signals, Pacific Coast, 1908, after No. 9, page 10, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 16.)

Notice is hereby given that San Pedro Entrance Beacon Light, maintained by the Pacific Coast Steamship Company, was established August 14, 1909, 80 feet 7 deg. 30 min. (true) NNE. mag., from San Pedro entrance buoy No. 2.

The light is fixed red, twenty feet above the water, shown from a white, four-pile beacon surmounted by a red lamp-house, on the following bearing: Deadman's Island, Coast survey, signal 346 deg. (true) NNW ½ W mag.

Point Arguello, California.—(List of Lights and Fog Signals, Pacific Coast, 1908, page 12, No. 15, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 17).

Notice is hereby given that about October 10, 1909, the 12-inch whistle at Point Arguello Light Station, California, will be replaced by a 6-inch siren, without other change. By order of the lighthouse board.

W. G. MILLER,

Commander, U. S. N., Inspector Twelfth Lighthouse District.

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SATURDAY, OCTOBER 2, 1909

VOL. II

NO. 19

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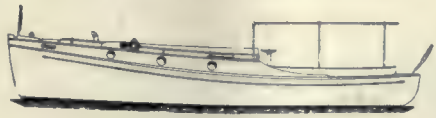
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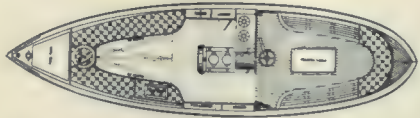
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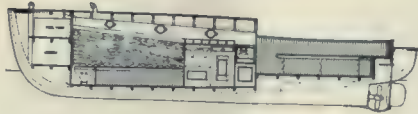
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Pacific Merchant Marine

Volume II

SATURDAY, OCTOBER 2, 1909

Number 19

Conditions of the American Merchant Marine on the Pacific

The following paragraph of Section 83 of the Navigation Laws of the United States explains a question frequently discussed, and marks a wide distinction between conditions under which American vessels engaged in the overseas traffic operate on the Atlantic and Pacific coasts of the United States. The paragraph reads as follows:

"Every master of a vessel in the foreign trade may engage any seaman at any port out of the United States, in the manner provided by law, to serve for one or more round trips from and to the port of departure, or for a definite time, whatever the destination; and the master of a vessel clearing from a port of the United States with one or more seamen engaged in a foreign port as herein provided shall not be required to reshipe in a port of the United States the seamen so engaged."

The great diversity of natural resources in different sections of the United States applies to maritime matters as may be noted in its numerous other industries. Vessels with home ports on the Atlantic Coast, in the main, are engaged in the trans-Atlantic trade with maritime nations, whose people are accustomed to and trained to the sea. From the navigation law mentioned an American vessel sailing to a foreign port may ship an entire crew at almost any port on the voyage, and it is not infrequent that such is the case. In tables which follow will be shown and readily understood why these conditions are somewhat favorable to shipping on the Atlantic as compared to the Pacific Coast. On the Pacific Coast the bulk of the overseas traffic is with the Oriental countries and mainly with those whose people are excluded from the United States. As a result, Pacific Coast vessels are compelled to ship a crew for the complete round trip voyage. If an American or European crew is shipped from an American port, the rate of wages at that port prevails, which is about the same in all ports on the Pacific, excepting those of China and Japan.

Section 61 of the Navigation Laws of the United States is necessary to determine the full meaning of the law relating to officers and crew on American vessels.

"All the officers of vessels of the United States who shall have charge of a watch, including pilots, shall in all cases be citizens of the United States (Metlakatla Indians excepted by act, March 4, 1907)."

"The word 'officers' shall include the chief engineer and each assistant engineer in charge of a watch on ves-

sels propelled wholly or in part by steam; and after the first day of January, eighteen hundred and ninety-seven, no person shall be qualified to hold a license as a commander or watch officer of a merchant vessel of the United States who is not a native born citizen, or whose naturalization as a citizen shall not have been fully completed."

"In cases where, on a foreign voyage from an Atlantic to a Pacific port of the United States, any such vessel is for any reason deprived of the services of an officer below the grade of master, his place, or the vacancy caused by the promotion of another officer to such place, may be supplied by a person not a citizen of the United States until the first return of such vessel to its home port; and such vessel shall not be liable to any penalty or penal tax for such employment of an alien officer."

(Note.—There is no qualification for citizenship necessary in the employment of a crew except as directly specified.)

The five vessels of the Pacific Mail Steamship Company and one of the Great Northern Steamship Company, operating in the Oriental trade on the Pacific, are compelled to take advantage of Sections 61 and 83 of the navigation laws, and do carry the number of officers and crew required with the necessary qualifications of same; the crew, therefore, consisting of Japanese or Chinese or a mixture of both, and at a rate of wages exceedingly lower than is paid to a European crew (table of both follows this article). All other vessels engaged in the foreign trade on the Pacific Coast, mainly with Tahiti, Mexico, Central America, and Panama (there being no American vessels regularly engaged in trade south of the latter port), pay the regulation wages of their respective home ports in the United States.

To thoroughly demonstrate, we have taken the statistics for the year 1904, whereby, to compare the cost of operating vessels in the trans-Pacific service. Table 1 shows the wages paid to a full European crew, by the Oceanic Steamship Company, in operating the American steamship Sonoma (6,200 gross tons) between San Francisco and Australia. Table 2 shows the wages paid to a mixed crew, by the Pacific Mail Steamship Company, in operating the American steamship China (5,060 gross tons) between San Francisco and Hongkong. Table 3 shows the wages paid to an Asiatic crew (seven excepted) by a Japanese company in operating the Japanese steamship American Maru (6,307 gross tons) between San Francisco and Hongkong.

Table No. 1

American S. S. Sonoma, San Francisco to Australia.
Gross tonnage, 6,200 tons.

No. of men.	Rating.	Equivalent in U. S. Gold Rate per man per mo.	Pay per mo.
Officers—			
1	Captain		\$250 00
1	First officer		125 00
1	Chief engineer		175 00
1	Purser		125 00
1	Doctor		60 00
Mates department—			
1	Second officer		75 00
1	Third officer		55 00
1	Carpenter		50 00
1	Boatswain		40 00
4	Quartermasters	\$ 35 00	140 00
13	Seamen	35 00	455 00
3	Cadets	20 00	60 00
1	Mess boy		25 00
3	Deck boys	15 00	45 00
Engineers' department—			
1	First assistant engineer		120 00
1	Second assistant engineer		90 00
1	Third assistant engineer		80 00
1	Fourth assistant engineer		75 00
1	Fifth assistant engineer		70 00
1	Sixth assistant engineer		65 00
1	Electrical engineer		70 00
1	Refrigerating engineer		70 00
1	Second refrigerating engineer		60 00
3	Water tenders	60 00	180 00
3	Oilers	50 00	150 00
3	Oilers	45 00	135 00
1	Storekeeper		40 00
3	Cadets	20 00	60 00
20	Firemen	50 00	1,000 00
24	Coal passers	40 00	960 00
2	Mess boys	25 00	50 00
Stewards' department—			
1	Chief steward		100 00
1	Second steward		50 00
1	Cabin steward		40 00
1	Steerage steward		35 00
3	Stewardesses	25 00	75 00
1	First cook		75 00
1	Second cook		50 00
1	Third cook		40 00
1	Fourth cook		35 00
1	Fifth cook		30 00
1	Sixth cook		25 00
1	First baker		70 00
1	Second baker		50 00
1	Third baker		35 00
1	First butcher		55 00
1	Second butcher		35 00
1	First pantryman		40 00
1	Second pantryman		30 00
1	Third pantryman		25 00
1	Porter		30 00
1	First messman		30 00
1	Second messman		25 00
1	Third messman		25 00
1	Saloon watchman		25 00
1	Steerage watchman		20 00
1	Second cabin pantryman		30 00
1	Storekeeper		50 00
1	Silverman		30 00

1	Printer		30 00
1	Janitor		20 00
25	Waiters	25 00	625 00
Total per month			\$6,800 00
Total per year			\$81,600 00
Total European crew, 157.			

Table No. 2

American S. S. China, San Francisco to Hongkong.
Gross tonnage, 5,060 tons.

No. of men.	Rating.	European and Asiatic	Equivalent in U.S. Gold Rate per man per mo.	Pay per mo.
Officers—				
1	Captain	European		\$250 00
1	First officer	European		125 00
1	Chief engineer	European		175 00
1	Purser	European		100 00
1	Doctor	European		60 00
1	Freight clerk	European		75 00
Deck department—				
1	Second officer	European		75 00
1	Third officer	European		50 00
1	Carpenter	European		50 00
1	Main deck watchman	European		35 00
4	Quartermasters	European	35 00	140 00
1	Boatswain	Asiatic		12 90
1	No. 2 boatswain	Asiatic		10 75
1	Sailmaker	Asiatic		8 60
27	Seamen	Asiatic	6 45	174 15
1	Mess boy	Asiatic		5 16
1	Mess boy	Asiatic	Nil	
Engineers' department—				
1	First ass't engineer	European		110 00
1	Second ass't engineer	European		90 00
1	Third ass't engineer	European		80 00
1	Electrician	European		55 00
3	Water tenders	European	55 00	165 00
6	Oilers	European	45 00	270 00
1	No. 1 fireman	Asiatic		9 89
1	No. 2 fireman	Asiatic		8 60
1	No. 3 fireman	Asiatic		7 74
27	Firemen	Asiatic	6 88	185 76
21	Coal passers	Asiatic	6 02	126 42
1	Mess boy	Asiatic		5 16
1	Storekeeper	Asiatic		7 74
Purser's department—				
1	Storekeeper	European		50 00
1	Steward	European		90 00
1	Second steward	European		40 00
1	Steerage steward	European		40 00
1	Stewardess	European		20 00
1	Baker	Asiatic		19 35
1	Second baker	Asiatic		6 45
1	Third baker	Asiatic	Nil	
1	Butcher	European		50 00
1	Porter	Asiatic		8 60
1	Second porter	Asiatic	Nil	
1	Pantryman	Asiatic		8 60
2	Second pantrymen	Asiatic	6 45	12 90
1	First cook, after galley	Asiatic		15 05
1	Second cook, after galley	Asiatic		10 75
1	Third cook, after galley	Asiatic		6 45
1	First cook, forw'd galley	Asiatic		19 35
1	Second cook, for'd galley	Asiatic		15 05
1	Third cook, for'd galley	Asiatic		6 45
1	Saloon watchman	European		25 00
1	Steerage watchman	European		25 00
1	Chinese steward	Asiatic		15 00
3	Steerage waiters	Asiatic	6 45	19 35

2 Officers' messmen	Asiatic	6 45	12 90
1 Officers' 2d messman	Asiatic	6 45	6 45
18 Cabin waiters	Asiatic	6 45	116 10
1 No. 1 waiter	Asiatic	10 75	10 75
1 Barkeeper	Asiatic	12 90	12 90
1 Interpreter	Asiatic	6 45	6 45
1 Silverman	Asiatic	6 45	6 45
1 Sculleyman	Asiatic	6 45	6 45
1 Bath boy	Asiatic	6 45	6 45
1 Deck boy	Asiatic	6 45	6 45
1 Chow boy	Asiatic	Nil	Nil
1 Tally clerk	Asiatic	12 90	12 90

168	Total per month	\$3,175 52
	Total per year	\$38,106 24
	Europeans	35
	Asiatics	133

Total number of crew168

Table No. 3

Japanese S. S. American Maru, San Francisco to Hong-kong. Gross tonnage, 6,307 tons.

No. of men.		Rating.	European and Asiatic	Equivalent in U.S. Gold Rate per man per mo.	Pay per mo.
Officers--					
1	Captain		European		\$200 00
1	First officer		European		100 00
1	Chief engineer		European		150 00
1	Purser		European		100 00
1	Doctor		European		60 00
1	Freight clerk		European		75 00
Deck department--					
1	Second officer		Asiatic		55 00
1	Third officer		Asiatic		40 00
1	Fourth officer		Asiatic		15 00
1	Junior officer		Asiatic		7 50
2	Junior officers		Asiatic	6 50	13 00
1	Carpenter		Asiatic		15 00
1	Carpenter's mate		Asiatic		11 50
6	Quartermasters		Asiatic	4(a 11 00	44 00
			Asiatic	2(a 10 00	20 00
1	Boatswain		Asiatic		15 00
1	No. 2 boatswain		Asiatic		11 75
2	Deck engineers		Asiatic	10 50	21 00
26	Seamen		Asiatic	6(a 6 75	40 50
				8(a 7 25	58 00
				6(a 8 25	49 50
				6(a 8 75	52 50
1	Mess boy		Asiatic		2 50
1	Storekeeper		Asiatic		10 25
1	Lamp trimmer				9 75
Engineers' department--					
1	First ass't engineer		European		75 00
1	Second ass't engineer		Asiatic		65 00
1	Third ass't engineer		Asiatic		55 00
4	Junior ass't engineers		Asiatic	1(a 45 00	
				1(a 35 00	
				1(a 30 00	
				1(a 10 00	120 00
1	Electrician		Asiatic		25 00
12	Oilers		Asiatic	1(a 15 00	
				1(a 12 00	
				10(a 10 50	132 00
12	No. 1 firemen		Asiatic	9 00	108 00
16	Firemen		Asiatic	8 50	136 00
16	Coal passers		Asiatic	5(a 7 50	
				11(a 7 00	114 50

2 Mess boys	Asiatic	2 50	5 00
1 Storekeeper	Asiatic		10 50
1 Boilermaker	Asiatic		20 00

Purser's department—

2 Assistant freight clerks.	Asiatic	1(a	25 00	
		1(a	12 50	37 50
1 Storekeeper	Asiatic			25 00
1 Steward	European			90 00
1 Steerage steward	Asiatic			17 50
1 Stewardess	European			20 00
1 Baker	Asiatic			20 00
1 Second baker	Asiatic			7 50
1 Butcher	Asiatic			25 00
1 Second butcher	Asiatic			2 50
1 Pantryman	Asiatic			15 00
1 Second pantryman	Asiatic			7 50
1 First cook, after galley.	Asiatic			22 50
1 Second cook, after galley	Asiatic			17 50
1 Third cook, after galley.	Asiatic			7 50
1 First cook, for'd galley.	Asiatic			8 50
2 Sec'd cooks, for'd galley	Asiatic			15 00
2 Third cooks, for'd galley	Asiatic			13 00
1 Fourth cook, for'd galley	Asiatic			6 00
1 Cook, steerage	Asiatic			17 50
1 Cook, steerage	Asiatic			12 50
1 Saloon watchman	Asiatic			12 50
1 Steerage watchman	Asiatic			10 00
5 Steerage waiters	Asiatic	3(a	7 50	
		2(a	6 50	35 00
2 Officers' messmen	Asiatic	2 50	5 00	
24 Cabin waiters	Asiatic	7 50	180 00	
1 No. 1 waiter	Asiatic		17 50	
1 Barkeeper	Asiatic		10 00	
1 Sculleyman	Asiatic		7 50	
1 Chow boy	Asiatic		25	

Total per month\$2,709 00

Total per year\$32,508 00

Europeans 9

Asiatics172

Total number in crew181

Table No. 4

Monthly wages Norwegian steamship Selja, 4,459 tons.

1 Captain	\$125 00
1 First officer	38 00
1 Chief engineer	76 00
1 Second officer	27 00
1 Third officer	22 00
1 Carpenter	17 00
4 Quartermasters (a \$11 00 each	44 00
1 Boatswain	13 00
1 No. 2 boatswain	9 00
6 Seamen @ \$7 00	42 00
1 First engineer	41 00
1 Second engineer	27 00
1 No. 1 fireman	13 00
1 No. 2 fireman	12 00
1 No. 3 fireman	11 00
12 Firemen (a \$7 00	84 00
1 Steward	17 00
1 First cook	12 00
1 First cook in the forward galley	4 00
1 Second cook in the forward galley	4 00
1 No. 1 cabin waiter	7 00
1 Officers' messman	7 00

Pacific Merchant Marine

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Address All Communications to the Pacific Merchant Marine

The Chambers of Commerce of Seattle and San Francisco have recently complained to the Navy Department in Washington of the methods employed by the Department in transporting coal from the Atlantic to the Pacific Coast in foreign bottoms.

President James McNab of the Chamber of Commerce of San Francisco wrote strongly against the policy and cited in detail the depressive effect of the system on the shipping industry of the Pacific Coast. Among the complaints Mr. McNab wrote as follows: "One feature of the unfairness of permitting the foreign vessels to transport coal from one domestic port to another, especially when an American vessel is available, is that a foreign vessel, finding herself on the Atlantic Coast with no opportunity of reaching a point in the Pacific, where freight rates are higher, and ascertaining that the United States Government is willing to break the spirit of the American coastwise navigation laws, names a rate of freight which might cover a portion of the expenses for the transfer of the tramp steamer from one coast to the other, at which latter point she competes with American vessels engaged in foreign trade and completely demoralizes freight rates."

W. P. Potter, Acting Secretary of the Navy, in a reply says that there are some statements in the letter of the Chamber of Commerce which are not quite in accord with the facts; regarding that portion of the letter above quoted, Secretary Potter says is apparently founded on a misconception, and further says that the Paymaster-General informs him that since the present movement began, March 1st, not one single steamer has been engaged under circumstances of that character. The vessels have been those either waiting for a cargo in European ports or proceeding to the United States with no engagements on the Atlantic after discharging.

The reply of Acting Secretary Potter is a vindication of the claims made by Mr. McNab, and, if the results

arising from the complaint were assured, consistent with the small profit made by the Navy Department as compared with the great loss sustained by the shipping industry in the transaction, further comment on the policy of the Navy Department would be unnecessary. The coal movement of the Navy Department is but one phase of the subject of the American merchant marine, and stands prominently forth as the "most unkindest cut of all." When considered from every possible point of view as applied to the case in question, sentiment, practicability, pride, patriotism, law, progress, self-preservation and all have been sacrificed for a profit to the Navy Department, and almost entirely eliminates the possibility of redress or relief, for an American industry that will never be separated in its smallest detail from that which constitutes our progress, present efficiency and future achievements of the United States Navy.

Thousands of combinations could be made that would criticise those statements as an appeal to sentiment, but the essence of talents comprising the combinations could not engineer, build or navigate a war vessel. At the present time we are receiving invaluable returns from the sentimental side of the American Navy, and are creating a sentimental sinking fund, presumably from which we must sooner or later draw practicabilities. While there are innumerable channels of sentiment, there is but one source of practicability, and when applied to our Navy Department consists of every possible encouragement to maritime interests, and the stepping stone to which is a merchant marine.

American educational institutions and methods have become the world's standard, from the smallest to the largest industry, for the rich and poor, every avenue of investigation has been explored and placed gratis in the hands of the American people, yet the mainstay of all, commerce, seems to have retrograded, and is less understood or profited by in the United States today than in the Eighteenth Century, or by other countries. Raised to the same standard as other industries, commerce begins in the kindergarten text-book of a merchant marine. Unfortunately these text-books are out of print, and we find ourselves groping in the dark for an education on this subject.

It is quite evident that the American merchant marine is being dwarfed in the interest of other industries, claimed to be of greater importance by a powerful or influential class of the community. To accuse one special class of doing so would elicit flagrant breaches of systems in which the majority of the people take a pardonable pride. To prove that railroad interests are opposed to water transportation is not an imaginary thought, but made manifest by the most primitive methods of railroad science. As railroad legislation in the United States is the basis of our railroad development, so has the same legislation proven to be the railroads' greatest source of protection: The necessity of railroad legislation is obvious, and like their capital has been concentrated into as few hands as possible.

The American people have suffered many indignities for want of a merchant marine, foreign influence being an important factor in its restrictions; but when prompted by the Navy Department with a full knowledge of and in view of present deplorable conditions, should not lend its aid to add the proverbial straw to the industry. We are at least permitted to glance at the law under which coal for the United States Navy has been transported from the Atlantic to the Pacific in foreign vessels.

Section 269 of the Navigation Laws of the United States reads as follows:

"No merchandise shall be transported by water under

penalty of forfeiture thereof from one port of the United States to another port of the United States, either directly or via a foreign port, or for any part of the voyage, in any other vessel than a vessel of the United States. But this section shall not be construed to prohibit the sailing of any foreign vessel from one to another port of the United States: Provided, That no merchandise other than that imported in such vessel from some foreign port, which shall not have been unladen, shall be carried from one port or place in the United States to another.

"No foreign vessel shall transport passengers between ports or places in the United States, either directly or by way of a foreign port, under a penalty of two hundred dollars for each passenger so transported and landed.

"A foreign built dredge shall not, under penalty of forfeiture, engage in dredging in the United States unless documented as a vessel of the United States."

This section of the Navigation Laws of the United States is the one redeeming feature of protection to the American merchant marine, and has proven itself the unqualified source of American industrial supremacy and the guidepost to commercial supremacy, if extended with the same objects to the over-sea traffic. Of the several contentions raised by President James McNab of the Chamber of Commerce of San Francisco, the law above quoted is the one referred to as denying to private citizens that which the Navy Department is privileged to abuse.

Mr. McNab further contended in his complaint that the policy of the Navy Department had a demoralizing effect on the freight rates on the Pacific Coast. Fortunately we are also privileged to sustain this objection and quote official figures to place the statement beyond question.

The Bureau of Statistics of the Department of Commerce and Labor gives the record of all vessels entering the ports of the United States, and whether in cargo or ballast; also vessels clearing under the same conditions. Coincidence has nothing whatever to do with the figures quoted. They are a matter of record, and easily verified, and admirably adapted to exemplify the full meaning and accuracy of Mr. McNab's statement.

Atlantic Coast

American vessels entered with cargo.....	1,355
American vessels cleared with cargo.....	945
American vessels cleared with cargo, 69.7 per cent.	
Foreign vessels entered with cargo.....	7,290
Foreign vessels cleared with cargo.....	6,687
Foreign vessels cleared with cargo, 91.7 per cent.	
American vessels entered in ballast.....	341
American vessels cleared in ballast.....	760
American vessels cleared in ballast, 223.8 per cent.	
Foreign vessels entered in ballast.....	1,537
Foreign vessels cleared in ballast.....	1,907
Foreign vessels cleared in ballast, 124 per cent.	

Pacific Coast

American vessels entered with cargo.....	1,173
American vessels cleared with cargo.....	1,446
American vessels cleared with cargo, 123.2 per cent.	
Foreign vessels entered with cargo.....	1,066
Foreign vessels cleared with cargo.....	1,233
Foreign vessels cleared with cargo, 115.6 per cent.	
American vessels entered in ballast.....	691
American vessels cleared in ballast.....	474
American vessels cleared in ballast, 68.5 per cent.	
Foreign vessels entered in ballast.....	669
Foreign vessels cleared in ballast.....	540
Foreign vessels cleared in ballast, 80.7 per cent.	

We have implicit confidence in the statement made by Secretary Potter, and the information furnished by the

Paymaster-General, nevertheless the conditions shown by the above figures prevail, and, while the Navy Department did not select an idle vessel from an Atlantic port of the United States, the policy is responsible for the fact that 223.8 per cent of the American vessels were compelled to clear in ballast, as against 124 per cent of foreign vessels under like conditions, and that only 69.7 per cent of American vessels cleared from Atlantic ports with cargo against 91.7 per cent of foreign vessels.

The demoralizing effects on freight rates of the Pacific Coast mentioned by Mr. McNab is very pronounced, as shown by an investigation of the figures quoted above. The 123.2 per cent of American vessels clearing from Pacific Coast ports with cargo, against 115.6 per cent of foreign vessels clearing likewise, demonstrates the navigation laws on the Pacific Coast, removed beyond the use made of those laws by the Navy Department in transporting coal from the Atlantic. The American vessels could engage coastwise from or on the Pacific, and the foreign vessel compelled to remain and await a cargo to foreign countries and establish cargo rates for American vessels at the same ratio that brought the foreign vessel to the Pacific Coast, namely, and as was the case in question, a rate of \$3.35 per ton against \$7.00 per ton asked by the Matson Navigation Company in an American vessel. The difference in favor of American vessels against foreign vessels clearing Pacific Coast ports in ballast is 12.2; but does not by any means represent the same comparative loss sustained by each of the two classes of vessels. Leaving out the question of bounties granted by foreign countries, particularly France, to tramp vessels engaged in the over-sea traffic, the wages paid to and maintenance of foreign crews are so much below the cost of American crews that the loss sustained by an American vessel is more than double that of its foreign competitor. The maritime laws of foreign countries as applied to tramp vessels are a further demonstration of economy in the service of foreigners, every possible cost of first construction and running expense being reduced to a minimum.

No department of the National Government is so interconnected with the merchant marine as the Navy Department. Rebuffs have been received and may continue to come from every other conceivable source, but from the Navy Department is due at least strict observance of the law which it is its duty to uphold and to punish all transgressors.

FIVE YEARS OF CANAL WORK

Progress Made Under American Control, Since May 4, 1904

v.

Canal Funds and Method of Disbursement

After taking over the Canal property on May 4, 1904, funds necessary for carrying on the work were temporarily disbursed by Lieut. Mark Brooke, United States Army, from an amount borrowed from the Director-General of the French company, who was subsequently repaid. The monies thus expended were repaid from the appropriation "Canal Connecting the Atlantic and Pacific Oceans." The Disbursing Office was originally located on the first floor front of the old Administration Building in Panama, where former employees of the French company made up all the pay rolls and vouchers for the continuation of the work under American control. With but two or three exceptions, they spoke only French or Spanish, and the few American employees as a rule spoke only English.

The money of the country at this period was Colombian silver, the value of which fluctuated from day to day. An arrangement was reached whereby the laborers would, as a rule, be paid in the money of the country,

and the American employees in United States currency, which arrangement practically obtains at the present day, except in the case of contracts made with Europeans and others on a gold basis. The Disbursing Officer secured a supply of Colombian silver from time to time by advertising for bids in the Panama papers for the sale of checks on the United States Subtreasury at New York. For instance, if the Disbursing Officer desired to purchase \$75,000 worth of silver, the advertisement would state that at 12 o'clock noon on a certain date, bids would be received for checks to this amount, payable in Colombian silver, with the privilege of rejecting any and all bids.

The bid or bids which gave the best returns were accepted in amounts sufficient to cover the amount advertised, the average price paid governing the expenditures made from this particular sale until the fund was exhausted. The premium paid varied from 117 on May 23, 1904, the date of the first sale, to 110 in August, 1904, and rose from then to 115 in January, 1905, the date of the last sale under this method. This made the Colombian peso vary from \$.4606 (expressed in United States values), to \$.4755, it being worth \$0.464 at the time the last sale was made on January 23, 1905. The requirements of the Disbursing office at that time were much more limited than now, a total of \$523,000 in round numbers sufficing for expenditure from May 23, 1904, up to the time that Panama money was introduced, the above amount meeting all the silver rolls, as well as many vouchers which were paid in silver.

The value of the Colombian peso expressed in United States money was so variable that it required a great deal of work to make payments and figure the credit due the Disbursing Officer when expenditures were made in silver.

The total transactions under the above arrangement are shown in the following table:

Date of Sale.	*Premium.	Value of dollars local currency in U. S.	Silver. Received.
May 23, 1904.....	117.1082	0.4606	\$ 32,566 24
June 12, 1904.....	113.697	0.4679	32,054 55
July 5, 1904.....	111.037	0.47385	42,444 44
August 2, 1904.....	110.361	0.47537	63,108 30
August 16, 1904.....	110.288	0.475537	105,144 18
September 17, 1904.....	111.5875	0.472617	105,793 75
October 10, 1904.....	113.132775	0.469191	85,253 11
October 27, 1904.....	113.823150	0.4676762	85,529 26
November 11, 1904.....	114.256875	0.46673	85,702 75
November 28, 1904.....	114.5007076	0.466199	139,425 46
December 23, 1904.....	114.5632875	0.466063	171,650 63
January 23, 1905.....	115.505681	0.464025	189,645 00

*Rate would be 100 plus premium, or in first case 217.1082 pesos for each \$100 U. S. exchange.

The situation was much simplified when the United States minted the money for the national currency of Panama, which was issued by that Republic during the month of March, 1905, the value of its peso having been fixed at the ratio of two for one. As there were no coins in the original mintage of less than five cents value, and as the rates of pay were figured to the cent, it was soon found necessary for Panama to issue additional fractional currency, which was done about one year later. The original silver 5-cent piece, which was practically out of circulation, the issue having been bought up by coin collectors and souvenir hunters, was replaced by a 5-cent nickel coin and in addition, a 1-cent nickel coin of the value of half a cent in United States currency was issued.

The gold payments were originally made in United States paper of the various denominations, but this was

found to be rather expensive, as well as inconvenient, for the reason that merchants and others shipped these bills out of the country almost as fast as they were brought in. They made a cheap means of exchange, simply requiring postage and registry fee for their transmittal, and saved the merchants from paying exchange to the banks, thus placing the expense of furnishing this money on the Commission.

On May 1, 1905, an agreement, which had previously been made by the Secretary of War with bankers in the city of Panama, commonly known as the "Bankers' Agreement," became effective. The Commission, under its terms, secured from four banking firms of Panama, all the United States money necessary for the work on the Isthmus, upon the payment of a premium of $\frac{3}{4}$ of 1 per cent. The agreement also stipulated that the bankers were to furnish all the silver required at the ratio of two dollars silver for one of gold, the payment for both the gold and silver thus received to be made through the Disbursing Officer by check on the Assistant Treasurer of the United States at New York, the bankers requiring the premium, however, to be paid in cash. This agreement expired by limitation on the last day of April, 1906, and was not renewed.

Meanwhile preparations had been made for securing future funds by the shipment of gold coin from the United States, using the accumulated silver on hand for the payment of sums less than \$10 silver (\$5 gold) only, the remainder being paid in gold coin. On account of the export tax imposed by the Republic of Panama on coin, either gold or silver, this money could not be shipped out to advantage as was done in the case of bills, so that the coin remained on the Isthmus. The bankers finally announced their willingness to receive Disbursing Officer's checks on the Sub-Treasury at New York at par, in exchange for gold and silver, so that the shipments of gold from the United States grew less and less, none having been shipped for about a year and a half past. As payments made on the gold rolls alone for the calendar year 1908 amounted in round numbers to \$9,000,000, and gold received from the sale of postal money orders, etc., was about \$2,000,000, under the bankers' agreement it would have been necessary to purchase about \$7,000,000, the premium on which at three-fourths of one per cent would be \$52,500. As the requirements for the payment of gold rolls alone have been between \$8,000,000 and \$9,000,000 per year since May 1, 1906, the date the agreement expired, it will be seen that a considerable saving has resulted.

At the beginning of the work, it was customary to issue checks to employees for such amounts as they required each month as an accommodation in forwarding money to the United States. The abuse of this privilege led to its abolition, as it was discovered that some employees were securing these checks for the purpose of selling them to merchants and others as New York exchange. Within the past few months this arrangement has again been put into effect, with the restriction, that a check for the entire amount due to an employee only will be given for each month upon request, and with the distinct understanding that it is only for purpose of transferring money to the United States, and that the privilege will be cut off if abused.

(To be Continued.)

Immigrants arriving in the United States for the fiscal year ended June 30, 1908, numbered 751,786. The record was for the year ending June 30, 1907, when the number was 1,285,348.

INDUCEMENTS TO BENEFIT THE COMMERCE, AND TRADE NOTES OF FOREIGN COUNTRIES

Statistics for the month of July indicate a rapidly improving condition of British trade. For eighteen months previous to June each month showed a decrease in both imports and exports. The gains in June were not only maintained, but appreciably increased in July, amounting to 7.58 per cent for imports and 5.28 for exports over July, 1908.

Trade of New Zealand

For the first three months of 1909 the imports into New Zealand, which had been increasing in value at the rate of \$5,000,000 per year from 1904 to 1908, have fallen off, during the first quarter of 1909, \$3,241,659, as compared with the corresponding quarter, 1908. The imports from the leading countries during the two comparative quarters were as follows:

Country	1908	1909
United Kingdom	\$15,077,022	\$12,784,750
British Possessions	4,982,234	5,361,649
United States	2,571,645	1,340,305
Germany	507,831	444,447
All other countries	644,869	610,791
Total imports	\$23,783,601	\$20,541,942

The foregoing table shows that the United Kingdom and the United States sustained the principal losses occasioned by the decreased purchases of New Zealand. The United States is proportionately the greater loser, for while the value of imports from the United Kingdom decreased a little more than 15 per cent, those from the United States fell off nearly 48 per cent. This proportional difference is attributable almost entirely to the action of the preferential tariff.

The exports from New Zealand during the first quarter of 1909 (\$34,171,311) were \$3,398,161 in excess of the exports for the first quarter of 1908. The value of the exports to the United States during the first quarter of 1909 is given by the New Zealand customs at \$1,164,534.

Canadian Fruit Shipments to England

During the past year the Dairy and Cold Storage Branch of Canada reserved storage accommodations on steamers weekly between Montreal and London for early apples and other tender fruits, the Canadian Government guaranteeing the cost. Consul-General Horace Lee Washington reports from Liverpool that the venture was so successful that it is now stated it has been renewed this year, with the difference that ships sail to London and another English port alternately, beginning August 20. Furthermore, the steamship lines have reduced their rates from \$7.47 to \$6.19 per ton.

Coasting Trade of Venezuela

Consul Isaac A. Manning, of La Guaiara, reports that the Government of Venezuela has approved the passenger and freight tariffs of the Compania Anonima de Navegacion Fluvial Costenera de Venezuela, which has its head office at Ciudad Bolivar, in the delta of the Orinoco. It is said that a representative of the company is now in the United States arranging for a steam vessel for this trade.

River Navigation in Europe

An American Congressional committee is now in Germany studying the development of rivers and canals, that information may be secured for use in the United States. The utilization of the upper reaches of the Elbe River, which is already so wonderfully made use of as it crosses the German Empire, will be interesting.

Improvements on the river Moldan from Prague to

Melnik, and on the Elbe from Melnik to Aussig, are being vigorously pushed. These improvements comprise a system of dams, locks, and lateral canals, to make the rivers navigable from Prague to Hamburg during all seasons of the year.

The work, which was commenced in 1897, will, when completed, comprise twelve dams, with locks, sluiceways, and retaining walls. At present five dams have been completed on the Moldan, two on the Elbe, where two are still building, and three are yet to be constructed, together with their locks. Aside from the twelve mentioned dams, two will be constructed within the city limits of Prague, one of which will furnish power sufficient to generate electricity for the Prague electric light and streetcar service, which belongs to the city. At present the two plants are expensive regarding fuel, consuming in 1908 upward of 52,085 tons of coal and coke.

All the river improvements are to be completed by the year 1914. Alongside each dam there is constructed a sluiceway for the passage of lumber rafts, which come down the Moldan from the Bohemian forests. There are also special passageways constructed to enable fish to pass up the river.

The cost of the improvements on the Moldan and Elbe from Prague to Aussig, a distance of 66 miles, is estimated at \$9,053,800, and for the two dams, locks, and canalization in the city of Prague, \$3,654,000. Two-thirds of the former improvement will be defrayed by the Austrian Government, and one-third by the Kingdom of Bohemia, the respective portions to be deposited in installments, semi-annually, in the Landesbank of Bohemia, which pays 3½ per cent interest on the deposits. For the latter improvements, within the city of Prague, the Government of Austria will issue bonds, the Government of Bohemia guaranteeing one-eighth of the interest on said bonds.

A harbor for the accommodation of boats has been constructed at Holleschowitz, a suburb of Prague, costing \$507,500. The freight traffic on the river will be moved mostly in barges hauled by tugs. The ordinary Moldan boat has a capacity of 450 to 500 tons, but boats of 1,000 tons from the Elbe have entered the canals. The traffic on the Elbe in 1907 was 4,113,692 tons, and in 1908, 3,664,109 tons. On the Moldan in 1907 it was 1,064,827 tons, and in 1908, 932,524 tons. The decrease in tonnage during 1908 was owing principally to the low stage of water, and to ice on the rivers.

Russia's Low Rates on Steel Rails

England, United States, and Canada were unable to compete with Russia for an order for 5,000 tons of 80-pound steel rails. The freight rate was \$2.92 from Russia, against \$4.06 from England to Delagoa Bay. The saving effected by purchasing from Russia amounted to about \$100,000, which involved a lower price also for the rails, owing, as stated by the treasurer of the Transvaal, to the combination of steel-rail manufacturers in Europe, excepting Russia, and also to the combination rate of the steamship companies.

A Sidney newspaper announces the withdrawal of the Alley line of steamships from the Canada-New Zealand route, due to the discontinuance of the subsidy by the latter country.

Arrangements are being made to open the locks of the new King's dock for traffic this month, which will rank Swansea among the first-class ports of the United Kingdom. The area of water inside the dock will be over

67 acres and the entrance locks will be more than 90 feet wide. Accommodation will be ample for the largest vessel afloat, and discharging and loading facilities will be of the most modern type. The dock, which cost over \$12,000,000, will be surrounded by many miles of sidings, with which five railroads will have direct connections.

In addition to the new King's docks, there are the North, South, and Prince of Wales docks, all well equipped, at which, during last year, 5,600 vessels entered. There are nine drydocks in the port and a huge new one in connection with the new wet dock, is in course of construction. The largest existing dock (dry) is 450 feet long by 120 feet wide, and another 480 feet long by 42½ feet wide.

Capacious warehouses, built adjacent to the various docks, are the property of the Swansea harbor trust, and contains excellent storage for tin plates, grain, oil, and general merchandise.

Pilotage is noncompulsory, and to add to the safety of vessels using the harbor, the main entrance channel has been lighted by gas buoys.

All developments and activities tend to foreshadow that Swansea is destined to become, if not the main ocean port of Great Britain, one of its leading seaports, especially as far as shipments to the United States are concerned, and American exporters knowing these advantages, will find a splendid market in Swansea for their goods.

Two important events took place within the Chinese province of Kwangtung in April. The first was the laying of the cornerstone of the Canton terminal depot of the Canton-Kowloon Railroad, and the second the turning of the first sod at Henugehow for what will be the first free port in China, and what is hoped will be a great commercial city, rivaling Hongkong and Macao.

Negotiations have been concluded between Senor Marcos L. Agrelo and an English firm for the erection of a dockyard and workshops on the Santiago River at the port of La Plata, Argentina.

The new weekly rapid service between Buenos Ayres and Asuncion, Paraguay, cuts the journey from 100 to 55 hours. A fast river steamer on the Plata connects the railroad points.

Five new shallow draft steel hull steamships have been completed by a British firm for Marina Mercante Argentina, a company recently formed to open up the rich interior country between the Parana, Uruguay, and Paraguay rivers. Each vessel has a carrying load of 730 tons, on a draft of eight feet, and is equipped with powerful winches, electric lighting, and good passenger accommodations. With the opening of the interior waterways of South America there would appear to be a good demand for vessels of this type.

Work has been commenced on the new port works at Pernambuco, Brazil, the total cost of which is to be \$16,200,000. Two dredges, two tugs, and a crane are already in operation, and the construction for the foundation for the breakwater has been started.

Under the patronage of the King of Italy, that country is taking steps for the preservation and restoration of its forests.

Canada is preparing to hold a world's fair at Winnipeg in 1912. The press of the entire country from St.

Johns to Vancouver is supporting the project with enthusiasm, \$25,000 having been raised among the business men of Winnipeg for promotion purposes. Efforts will be made to interest Australia and New Zealand in the enterprise.

The following governments will participate officially in the International Exposition to be held at Brussels in 1910: Great Britain, France, Germany, Italy, Spain, Portugal, Holland, Denmark, Greece, Turkey, Persia, Mexico, Peru, Ecuador, Bolivia, Nicaragua, Guatemala, Hayti and Honduras.

Strikes and lockouts in the United Kingdom were more numerous and far-reaching in effect in the year 1908 than for the previous ten years. The most serious cases involved the engineering, shipbuilding, and cotton-spinning industries. The disputes in these industries affected 166,000 people, causing a loss of 8,250,000 working days. Other disputes involved 129,000 workers and loss of 2,500,000 days. More serious results may have occurred without the influence of the permanent boards of arbitration and conciliation.

The special mail-order trade of Chile is rapidly increasing, imports by this system amounting to \$989,720 in 1908. The principal articles imported and value included watches and jewels, etc., \$225,215; silk goods in general, \$227,287; lace, gloves, dresses, etc., \$160,102; leather goods, feathers, etc., \$43,945.

The Salvadoran minister of foreign affairs complains of the insecurity of packages transmitted by parcels post. The complaint is well timed and applies to packages sent from the United States to almost all other countries. The matter of the package is of minor importance to the shipper in the rush of a mail-order business, but the recipient views the transaction from his interest in the article and condition in which it is received.

A prominent New York exporting firm in commenting on this question makes the following statement: "We have a large trade in the Far East, which we have been working up for the past fifty years, and have made it a practice to give special attention to packing, which undoubtedly has saved us a good deal of money, and helped us to hold and develop the trade we have today."

Trade in canned fruits and preserves from the Pacific Coast should be fostered with Norway. The tariff on these goods has recently been reduced from 75 ore (\$0.20) to 40 ore (\$0.10) per kilo. Formerly these goods were shipped to London houses, thence to the Norwegian wholesaler, and reached the consumer at high prices. The demand for Pacific Coast canned goods and preserves in Norway is good, and with cheap freight rates by way of Tehuantepec should be the means of developing a splendid trade in these goods.

The wood pulp trade of Germany with the United States has increased from 9,104 tons, valued at \$401,499 in 1904, to 34,710 tons, valued at \$1,517,595 in 1908. The total imports of wood pulp into the United States for the year ending June 30, 1908, amounted to 237,514 tons, valued at \$7,313,326. Exports from the United States for the latter period were 23,845,732 pounds, valued at \$519,625.

PACIFIC COAST PORT NOTES

PORT OF SAN FRANCISCO

American Ship Astral Sails for New York—Bates & Chesebrough dispatched the ship *Astral*, of the Clipper Line, to New York on Sept. 17th with a full cargo. The ship had a miscellaneous cargo which consisted of salmon, beans, lumber, asphaltum, fruit, wine, general merchandise, and a consignment of California hemp. The hemp, raised on an island in the San Joaquin, was shipped as an experiment. All told the cargo measured 5,600 tons.

Steamer Winnebago's Officers Suspended—United States Inspectors of Hulls and Boilers Booles and Bulger have, as a result of their investigations into the loss of the steamer *Winnebago*, suspended the licenses of Captain W. Treanor and Chief Mate N. MacLeod. The steamer was wrecked on July 31st, while en route to San Pedro from Everett, and the inspectors decided the unskilfulness and negligence in navigating the vessel was responsible for the accident.

At the time the vessel struck, MacLeod was on the bridge and the vessel was being operated at full speed during a fog. He had an idea that the vessel was much nearer to Point Cabrillo than is deemed safe, but no effort was made to make soundings.

Japanese Are Becoming Very Flagrant in Violating Sealing Laws—That Japanese sealers disregard and treat with contempt the international laws relating to seal catching, is the statement of J. N. Cobb, agent of the bureau of fisheries in Alaska.

The Japanese government does nothing to prevent violations of the sealing laws and the Canadian masters of Japanese vessels come within the sixty-mile limit.

Oakland Contemplating Harbor Improvement—The Board of Public Works of Oakland has appointed a board of consulting engineers for the purpose of passing on arrangements for the proposed harbor improvements. Otta van Geldern, M. K. Miller and Colonel W. H. Heuer compose the board.

Independent Steamship Company to Have New Steamers—General Manager C. J. Lehman, of the Independent Steamship Company, will endeavor to secure a suitable steamer on this Coast for coastwise trade. The amount of cargo carried by the two steamers now owned by the company has taxed them to their full capacity.

Matson Liner Equipped with Submarine Signal Apparatus—The Matson Navigation Company's steamer *Lurline* has been equipped with the newest apparatus for safeguarding navigation, the submarine signaling apparatus. The apparatus has not been tested as yet, as the only vessels similarly equipped are the United States lightships. The apparatus is of great benefit in foggy or heavy weather, as a vessel with the equipment can communicate with the lightships and not only ascertain her position but also avoid the dangerous points near the vessel.

Whaler Jeanette Arrives with Catch of Whaling Fleet—The whaling schooner *Jeanette*, which left here on May 25th with supplies for the whaling vessels of the north, arrived in port with 16,000 pounds of bone, 24 lynx skins, 500 fox skins and 63 white bear skins. The *Jeanette* reports that the steam whaler *Karluk* will winter at Herschel Island, in the Arctic.

Steamer San Mateo Will Be Delayed in Trip to New York—The steamer *San Mateo*, which was recently chartered by Bates & Chesebrough to load merchandise for New York, will be unable to start loading for several weeks. The steamer was placed on drydock at Seattle

to ascertain what injury had been received during a trip to Norton Sound, when ice bent several plates and forced a number of frames out of position. The steamer will remain on the Sound about three weeks to load a partial cargo for New York, later coming to San Francisco to secure remainder. The steamer was purchased several weeks ago from the Pacific Steam Navigation Company by the Luckenbach estate of New York.

The *San Mateo* will alternate with the *J. L. Luckenbach* between San Francisco and New York. The latter, a 6,000-ton steamer, cleared from Philadelphia with a full cargo of merchandise on September 12th and is expected to arrive at San Francisco about November 12th.

Alaska Pacific Steamship Company Place Another Steamer on Local Route—Because of the unusual cargo offerings the Alaska Pacific Steamship Company has secured the steamer *Jeanie* for several trips out of San Francisco. The *Jeanie* is owned by the Alaska Coast Company and has been operating in the Alaska trade.

Petition Government to Seek Missing Ships—Two years ago four American clipper ships, the *Arthur Sewell*, *Fort George*, *Bangalore* and *Adolph Orbrig*, sailed from Philadelphia or New York for various Pacific Coast ports, and since then have dropped from human knowledge. More than 100 other American vessels also are on the "missing" list, generally believed to have been lost in the South Pacific, but so strong is human faith that shipping men of this city and New York, interested in the vessels, their cargoes or their crews, are making a determined effort to have the government send war vessels in search of them. The matter has been presented to the proper officials at Washington, and at last it is believed that the appeals will be heeded.

The part of the ocean to be searched lies between the 15th and 19th degrees of south latitude and the 132nd and 139th west meridians. This portion of the South Pacific remains practically unknown to navigators and oceanographers. Probably the only persons who ever have visited it are old-time whalers, hardy adventurers, or, it is hoped, by the crews of the missing vessels.

That men and vessels given up as lost have returned to human habitation again has been a frequent occurrence. For two years the crew of the British ship *DunDonald* existed on an island south of New Zealand before they were rescued, and the crew of the French bark *President Felix Faure* spent an even longer time on another uninhabited island, subsisting on the flesh of penguins and shell fish until they were found by a steamer sent out from New Zealand to search for them.

Should the United States Government fail to do anything toward finding the crews of the *Sewall*, *Fort George*, *Bangalore* or *Orbrig*, the friends of the missing crews are hoping that the British cruiser *Algerine*, which is searching the seas where they are supposed to be for the Scotch ship *Australian*, which left Mazatlan, Mexico, over a year ago for Sydney, New South Wales, and has not been reported since, as well as for half a dozen other British vessels posted as missing in the past year and a half, may run across some trace of them.

Seattle

State of Washington May Establish Nautical School—

Naval officers stationed on Puget Sound have commented so persistently on the practicability of establishing a nautical school that several commercial organizations have taken up the project and will probably see it through to a successful completion. The naval officers state that the establishment of such a school for instruction in navigation and naval tactics would materially help to make Puget Sound a naval base of the Pacific. It is said that

if the State provides such a school, the navy department would place a suitable ship at the school's disposal and detail an officer to take charge.

Foreign Steamer Owned by Seattle Capitalists Arrives on Sound—Being the first tank steamer to bring creosote from Europe to Puget Sound, the steel steamer H. C. Henry arrived on September 25th. The steamer was built at Greenock on the Clyde and is owned by the Pacific Creosoting Company.

The construction of the H. C. Henry embraces what is believed to be the acme of tank steamer perfection. There are seven double tanks, four forward and three aft of the engines. The vessel is 375 feet long, has 50 feet beam and her depth of hold is 29 feet. Her dead weight measurement is 6,500 tons. The vessel was launched June 8th and given her trial trip July 3rd, after which she steamed to Emden and took on cargo. The construction of the steamer was done in fast time, as the contract for her construction was only let in October, 1908.

The creosote is discharged by pumps, two eight-inch mains handling the cargo, and her tanks can be emptied in forty-eight hours. For general cargo loading there are winches forward and aft, and big hatches will facilitate the work. The hatches on each tank are made double, big ones for general cargo and smaller ones within them for the oil.

The H. C. Henry will be continued in the trade between the Pacific Creosoting plant at Eagle Harbor and Europe, carrying creosote in bulk to this Coast and returning with any cargo that may be offering. She can carry wheat handily, as the effect of the creosote can be steamed out of her steel tanks with little trouble, and her tanks were designed to accommodate general cargo as well as fluid contents.

Japanese Steamer Tosa Maru to be Taken from Seattle Run—From information received from the Yokohama office of the Nippon Yusen Kaisha it is likely that the steamer Tosa Maru will be withdrawn from the service between the Orient and Seattle. The vessel, which is of 5,800 tons' capacity, is reported to be destined for the coastwise business on the Otaru run.

The scarcity of cargo is given as the reason for withdrawing the big carrier.

Other vessels in the deep sea trade which are reported to be withdrawn from active service soon are the Ryojun Maru, the Kamakura Maru, Colombo Maru and Eito Maru, which will be run to Formosa and other coast services. The Tosa Maru arrived in Yokohama on her last trip from Seattle on August 6th.

Weir Steamship Company to Improve Oriental Service—The Andrew Weir steamers in the Oriental service will hereafter call at Hongkong on the westward as well as the eastward trip. The schedule has been arranged as follows: Steamers Kumeric, Aymeric, Suveric and Oceano, westward bound, will steam from Tacoma, Seattle and Vancouver to Yokohama, Kobe, Moji, Hongkong and Manila. East bound, from Manila, China to Japan ports, thence to Victoria, Vancouver and Tacoma.

Vancouver

British Board of Trade Enquiry Into the Loss of the Ships Falklandbank and Toxteth Completed—The British Board of Trade has completed an investigation into the fate of the ships Falklandbank and Toxteth, and in a decision made public states that ice collisions off Cape Horn sealed the destiny of both vessels. Lloyd's posted both vessels as lost some time ago.

The Falklandbank cleared from Port Talbot, Wales, on November, 1907, with coal, for Valpariso. The Toxteth

cleared March, 1907, for Tocopilla. The Falklandbank was spoken off the river Plata but the Toxteth was never heard from.

The court found in the case of the Falklandbank that it was most unlikely that there was spontaneous combustion among the cargo; that the ship was well found and in good and seaworthy condition; that her cargo was properly stowed and secured; that she had the required freeboard. As to the cause of her loss the court said that this was a matter of conjecture, as there was no direct evidence.

But there was evidence that there was a large quantity of ice in the vicinity of Cape Horn about the time the Falklandbank should have got there, and the court was of the opinion that her loss was caused by collision with an iceberg. The value of the ship was \$30,000, and the insurance effected on her hull, freight and disbursements was \$49,725. The Falklandbank carried a crew of twenty-eight all told.

Practically the same decision was given in the case of the Toxteth, except that the court found that the cargo was not shipped under favorable conditions, but they accepted evidence that there was little to show spontaneous combustion. Her value was about \$32,500, and the insurance effected on her amounted to \$62,750. The Toxteth carried a crew of twenty-seven hands.

Contract Let for Salvage Work on Steamer Ohio—The Vancouver Dredging and Salvage Company has secured the contract for the salvaging of the cargo and hull of the steamer Ohio. San Francisco underwriters had the agreement for the working of the 1,800 tons of cargo, while the London Salvage Association had the contract governing the hull. The contract was awarded on a basis of 75 per cent to the salvors "or no cure no pay." The salvage will be sent to Seattle to sell.

Vancouver to Have 10,000-ton Drydock—From information furnished by Consul-General George N. West of Vancouver, B. C., the docking facilities of the British Columbia coast will be augmented by a modern drydock, capable of lifting 10,000 tons. The contract for the construction of the drydock has been let to an English firm, which will build the dock in England and ship it knocked down to Vancouver, where it will be located. The dimensions of the dock are: 510 feet long, 70 feet in width and 30 feet draught over the sill. The only dockage facilities in that vicinity for large vessels are at Esquimalt, Vancouver Island.

British Shipbuilders Take Out British Columbia License—Cammel, Laird & Co., the well known British shipbuilders, builders of fast torpedo craft, have been licensed as an extra provincial company. The company secured rights to enter business as builders of warships and armor plate in British Columbia. It is considered this move is to enable the British company to establish a plant in this province in the event of the Canadian Government building a fleet of warships on this Coast, as was recently promised by Dominion officials.

Eureka

Steamer Argo to be Placed on Port Kenyon-San Francisco Run—The steamer Argo, which is now operating on the Portland-Tillamook route, will shortly be placed on the Port Kenyon-San Francisco route for the winter season. A larger steamer is needed for the steadily increasing business which the Argo is carrying and the owners of the latter boat are on the market for a suitable steamer. Before being placed on the Port Kenyon-San Francisco run the Argo will have her passenger accommodations enlarged.

Bayside Lumber Company to Operate Steamer Excelsior on Eureka-San Francisco Run—The Bayside Lumber Company has chartered the steamer Excelsior for six months and she will carry lumber and a limited amount of passengers. It was not the intention at first to carry passengers, but as the Excelsior was built with accommodations for a number of first and second-class passengers it is planned to have her carry them, as do several other steam schooners.

Tacoma

Local Shipbuilders Will Establish Yard Near Seattle—E. W. Heath, the largest shipbuilder of Tacoma, has purchased a tract of land with a water frontage of 360 feet and running inland 370 feet on Duwamish River, which empties into Elliott Bay, the harbor of Seattle. Mr. Heath will establish a branch of his Tacoma shipbuilding yard on this site.

Contracts for the docks and buildings to be erected at a cost of \$25,000 have been let and the work of constructing the shipyard will be rushed to completion.

Mr. Heath employs from fifty to 100 men and has established a reputation as a builder of wooden vessels on the Pacific Coast. He has constructed about sixty vessels in all, among them the Jefferson, the Clallam and the new West Seattle ferry.

Bark Charmer Clears on Last Voyage—Bound on a voyage to the west coast of South America with a cargo of coal, the bark Charmer will sail thence to New York, there to be dismantled and converted into a barge.

The splendid career of the fleet of Maine-built wind-jammers that came around the Horn to the Pacific with the development of Puget Sound and California trade is typified in the history of the Charmer. Built at Bath in 1881, the vessel was launched as a ship, but subsequently altered to the bark rig.

Immediately after launching the Charmer was sent around Cape Horn, engaging first in the Oriental trade, subsequently engaged in carrying coal between British Columbia and San Francisco, and for several years past notable with the fleet of foreign-going lumber carriers.

Portland

Captain W. H. Patterson Suspended—The United States inspectors suspended for ten days Captain W. H. Patterson, who was piloting the steamer George W. Elder at the time that vessel rammed and sunk the tug Daniel Kern. The suspension dated from September 16th. Captain J. Moran, in command of the Daniel Kern, at the time of the accident, was exonerated.

Steamer R. Miler Bought by North Shore Transportation Company—J. W. Babbidge & Sons have sold the steamer R. Miler to their competitors, the North Shore Transportation Company. The two companies have been rivals on the route between Portland and Deep River, and the sale of the boat includes the interest in that route.

Coos Bay

Coos Bay Citizens Issue Bonds for Harbor Improvements—Grown weary waiting for promised government improvements, citizens of Coos Bay and the surrounding country have decided to make their own improvements.

The first steps in the project were the incorporation of Coos Bay and the issuance of bonds to provide funds to establish a first-class harbor in southern Oregon. Sealed proposals for these bonds are to be received by J. C. Gray, treasurer of the Board of Commissioners of the port. November 9 is the date when all bonds must be received. The bonds are of \$1,000 each, and will bear interest at the rate of 5 per cent, payable semi-annually at the U. S. National Bank of Portland, or the Hanover Bank of New York. The first twenty-five bonds will be

due in 20 years, and the next and final twenty-five are to be redeemable each succeeding year until each has matured.

Honolulu

Contract to Be Let for Construction of Navy Yard Buildings—Plans and specifications have been completed for the construction of several concrete buildings to be used as barracks for marines at the Pearl Harbor Navy Yard. The contract will necessitate an appropriation of \$185,000. Tenders will be solicited within ninety days. The army hospital, which is to be located at Leilehua, and which will cost \$100,000, is to be started the early part of October.

STEAMSHIP PASSENGER RATES BETWEEN LOS ANGELES AND SAN FRANCISCO

San Francisco has reached a point in its set cycle of events, that occurs in a predestined course at the most unexpected and inopportune time, and in a more or less exaggerated form. The present war of steamship rates between San Francisco and Los Angeles recalls similar events in the river traffic from San Francisco Bay, that furnished amusement for the public while the war lasted, and in some instances reduced itself to the point of compulsory passage by an unsuspecting victim, done merely as a hoodwink to impress one competitive steamship line of the great business qualities of the other. The present controversy between the Pacific Coast Company and the Schubach and Hamilton Company has settled itself down to a case of the survival of the fittest. Rates have certainly been cut to the point of infinity, when viewed as a business transaction; and the public are not slow to avail themselves of participation in the resulting benefits.

The Schubach and Hamilton Company, owners of the Steamship St. Croix, formerly operating in the Alaska excursion trade from Puget Sound, brought the vessel to San Francisco and entered the San Francisco-Los Angeles run. It is claimed by this company that their first passenger list was carried at the established passenger rates, and that within a few hours the Pacific Coast Company reduced the rates \$2 for all classes of passengers, when the Schubach and Hamilton people responded by cutting the rates directly in half and issued the following:

Special rates to Los Angeles on the palatial S. S. St. Croix, first-class round trip, \$11.50; first-class one way, \$6.35; intermediate, round trip, \$9.50; intermediate, one way, \$5.35; steerage, \$4.35. Considering that the one way trip consumes about 22 hours and short railroad connection to reach Los Angeles, the profits are somewhat visionary.

The competing vessels are all first-class in every particular, the S. S. St. Croix (frontispiece of this issue) being built specially for first-class passenger service. She was built at Barte, Me., in 1895, has a gross tonnage of 1993 tons, net 1064; is 247.7 feet length, 40.4 feet breadth, and 25.9 feet depth, with 2700 indicated horsepower, carries a crew of 59, and accommodations for 164 first-class passengers in two berth state rooms, and 75 intermediate and 147 steerage passengers. The St. Croix is an oil burner and considered a speedy vessel.

The St. Croix is in competition with the Pacific Coast Company's steamships, the President and the Governor, sister ships built at Camden, N. J., in 1907, each of 5250 gross and 2401 net tons; 391.9 length, 42.2 breadth, and 19.7 feet depth; 5,000 indicated horsepower, carry crews of 147, coal burning, and equipped for first-class passenger and freight service. The traveling public have not expressed an opinion as to preference for any particular vessel engaged in the controversy; the dollars and cents proposition is the only question that interests them.

SHIPBUILDING NOTES

Union Iron Works

Work at the Union Iron Works is about as plentiful as it has been for some time and the sight of all docks occupied resembles the scene of years ago.

The Standard Oil Company's steamers *Atlas* and *Asuncion* are being refitted with Watson's packing in the H. P. piston rods. Steamer *Asuncion* is also having engine and deck machinery thoroughly overhauled. Slight repairs are being made to boiler and hull.

S. S. *Queen* receiving general hull and engine repairs.

S. S. *Washtenaw* at yard renewing shaft and liners for same. Slight repairs being made to machinery.

A spare shaft and propeller are being installed in the S. S. *Cheales*.

The Monticello Steamship Company's steamers *Arrow* and *General Frisbie* are having new tail shafts constructed. The shafts will be placed in position as soon as the steamers can be spared from their runs.

S. S. *Fair Oaks* is on the floating dock having a new rudder post fitted. Minor repairs are being made to engine.

The contract on the U. S. A. T. *Sherman* is about 50 per cent completed. The boiler tubes are expected to arrive daily from the East and 30 days after their arrival the boilers will be ready to be placed in the steamer.

The new steamer for the Monticello Steamship Company is being rushed to completion. The Union Iron Works has established a record by completing the hull framework in 8½ working days.

The *Oceanic Steamship Sierra*, which was taken off the Australian run in March of 1907 and has lain idle in the harbor since, is receiving a general overhauling, preparatory to placing her in commission. It is reported that a party of Mystic Shriners will charter the *Sierra* for a trip to the islands.

Work at Moore & Scott Iron Works

The repairs on the S. S. *TELEPHONE*, owned by the Western Pacific Railway, are about completed at a cost of about \$30,000. It is expected the vessel will get away from the yards about the middle of the month.

The Tug *PAYSON* had been laid up for the past three weeks receiving a thorough overhauling. The main engine was raised and the line shafting gone over thoroughly.

The five masted Schooner *CRESCENT* was placed on the dock for cleaning, painting and repairs to hull. She also received a new main mast.

The Steamer *SANTA BARBARA*, owned by J. R. Hanify & Company, is having new headers put in her B. & W. Boilers.

The Ship *RUFUS E. WOOD* left the yard early this week, having been converted into a coal barge.

The Steamer *WESTPORT* is laid up undergoing extensive repairs, which will be completed early in the coming month.

Steamer *NAVARRO*, owned by Hobbs, Wall & Company, was placed on the dry dock for cleaning and painting and an entire starboard side was put in, replacing the rotten timber. The vessel also received a new deck.

The Norwegian Steamer *TORDENSKJOLD* was brought to the yard for extensive repairs to her main boilers, these repairs consisting of new furnaces, new front heads and new tubes, the job amounting to approximately \$25,000.

The British Steamer *TAUNTON*, which was rammed by the Alaska Pacific Steamer *WATSON*, is being re-

paired by the Moore & Scott Iron Works, the amount of their bid being approximately \$4,000. No other bids were received, as the vessel had to leave on schedule time and without delay.

The Pilot Boat *LADY MINE* was on the dock three days receiving new copper sheathing and a general overhauling.

The Steamer *NATIONAL CITY* was laid up for inspection and repairs.

The Steamer *ARCTIC*, which bumped on a rock on the Northern Coast, is on the dry dock receiving a new keel and some minor repairs.

The National Steamship Company's Steamer *COQUELLE RIVER* is being overhauled and will be laid up for several days.

The Light-House Tender *SEQUOIA* will be dry docked, cleaned and painted and the tail shafts hauled in for inspection.

The Schooner *BARTLETT*, owned by Eschen & Minor, was placed on the dry dock for cleaning and painting.

The Gasoline Schooner *MONTEREY*, after returning from a northern cruise, where she ran aground, was dry docked and repaired.

This firm was the lowest bidder for the new Steel Single Screw Bulk Oil Carrier, to be constructed for the Associated Oil Company. The bids were:

Moore & Scott.....	\$120,000
Risdon Iron Works.....	161,370
United Engineering.....	135,599

Moore & Scott agreed to complete the vessel in seven months.

William Cryer

Three contracts have recently been placed with the William Cryer plant in East Oakland. The contracts are for twenty-five foot launches, one of which is for the Gotham Engineering Company of Alameda, another for D. Denzet of San Francisco.

The San Francisco Bridge Company's Launch *Manila* was on the ways for an extensive overhauling.

The San Francisco Police Department Launch *Patrol* was on the ways to be cleaned and painted.

Standard Oil Company's Launch Petroleum Completed.—The United Engineering Works has completed the steel launch *Petroleum*, built for the Standard Oil Company. The launch, which was designed by Marine Superintendent Rolphs of the Standard Oil Company, was given a very satisfactory trial trip on the bay, making a speed of 10 miles an hour. The *Petroleum* will be used to carry oil products to points about the bay.

The dimensions of the *Petroleum* are 73 feet long, 16 foot beam and 7 feet deep. In her steel tanks, which are built into the steel hull and decks, the entire vessel being of steel, she has a capacity for carrying 20,000 gallons of distillate in bulk. She is operated by a 100-horsepower gas engine. She also carries an engine to operate the pumps and electricity plant. The vessel cost about \$30,000.

The United Engineering Works thoroughly overhauled the machinery of the Matson liner *Hilonian*. A submarine signaling apparatus will be installed while the steamer is at the yards.

Several of the returning Alaska packers will be overhauled before laying up for the winter.

The United Engineering Works launched a fire tug for the Alaska Packers' Association. The tug was built to protect the large fleet of salmon carriers belonging to the association, which lay up in Oakland Creek each

year. Already there are five of the fleet in the estuary and this number will be steadily increased by the incoming vessels.

The fire tug which is named the Phoenix, is equipped with a 150 H. P. gas engine and strong pumps.

Hull of New Steamer Antelope Building at Eureka Is About Completed.—Within a short time the hull of the new steamer Antelope, which is to replace the present ferry on the run between Eureka and Samoa, will be completed. She will be ready for service in about six weeks.

It will be necessary to lay up the old Antelope in order to transpose the engines to the new ferry. The machinery is in first-class condition and will do good service in the new boat for a long time.

Craig Shipbuilding Plant Secures Big Contract.—At a meeting of the directors of the Western Marine Steamship Company in San Francisco officers were elected and the contract to build a steamship awarded to the Craig ship plant at the price of \$195,000. The officers are: J. G. Hoyt, president; George H. Bixby and R. H. Swayne, vice-presidents; P. E. Hatch, secretary and treasurer; A. A. Mason, assistant secretary. The Executive Committee includes J. G. Hoyt, R. H. Swayne and C. L. Tilden.

Upon the arrival of a consignment of steel ordered at San Francisco the construction of the steamer will begin in earnest.

New Matson Liner Wilhelmina Launched.—The launching of the new Matson Liner Wilhelmina at Newport News was successful in every particular. Miss Wilhelmina Tenney, for whom the vessel was named, christened the big craft as it slid from the ways, and her father, E. D. Tenney, a well known Hawaiian sugar planter, with William Matson, president of the Matson Line, were on hand to attend the event.

The Wilhelmina will be the largest of all the Matson vessels, having a length of 451 feet, and will be capable of carrying a dead-weight cargo of 7,000 tons. Fine accommodations for scores of passengers will also be provided. The liner will be used on the San Francisco and Honolulu route, and will be in service early the coming year.

Steamer Bandon to Be Towed to San Francisco for Repairs.—Two divers have been working on the Steamer Bandon, recently nearly wrecked at Bandon, Ore., and the vessel is to be brought to San Francisco for repairs. Word from Bandon is to the effect that the steamer is still leaking at the rate of thirty inches an hour, but the pumps easily keep the vessel in a safe condition. It will be necessary to place a new bottom in the steamer, also a new rudder-post, stern timbers and planking.

Repairs to British Bark Zinita to Cost \$60,000.—Contracts for repairs to the British bark Zinita amounting in the aggregate to \$60,000 were awarded to Tacoma firms. Lewis, Anderson, Foard & Co., was given the contract for the repairs to the sails; while the Phoenix Engine Works will repair the rigging and masts.

New Steamer for San Francisco-Portland Route.—Supervising Engineer A. Dunham, of the North Pacific Steamship Company, also interested in operating the steamer Argo in the north, and associates will this spring construct a steel steamer to operate between San Francisco and Portland via Eureka and Coos Bay.

It is planned to construct an 18-knot 1500 horsepower steel ship for the Eureka-Portland run via Astoria and Coos Bay. The ship is to cost \$150,000. Wolf, the noted architect, is drawing the plans. The boat will be built in five months and will be operating in a year. The craft will carry 50 people, having 25 2-berth staterooms.

It will carry 2,000 tons of freight. The length of the boat will be 200 feet, the beam 35 feet, and the boat will draw but 8 feet. It will make weekly trips. Eureka have subscribed \$35,000.

TRADE OF THE UNITED STATES

According to official returns to the Bureau of Statistics the foreign trade of the United States during the fiscal year ending June 30, 1909, as compared with the trade of the preceding year, was as follows: Imports, \$1,311,920,224, an increase of \$117,578,432; exports \$1,663,011,104, a decrease of \$197,762,242.

Taking the imports by classes for 1909, the increase and decreases, as compared with 1908, were as follows: Foodstuffs in crude condition and food animals, increase, \$18,344,171; foodstuffs partly or wholly manufactured, increase, \$18,019,894; crude materials for use in manufacturing, increase, \$89,837,493; manufactures for further use in manufacturing, increase, \$26,331,868; manufactures ready for consumption, decrease, \$34,954,994; miscellaneous, decrease, \$954,807.

With the exception of an increase of \$1,192,417 in miscellaneous, there were decreases in all classes of the exports. As compared with 1908 these decreases were as follows: Foodstuffs in crude condition and food animals, \$53,388,199; foodstuffs partly or wholly manufactured, \$29,504,219; crude materials for use in manufactures, \$35,912,831; manufactures for further use in manufacturing, \$31,168,728; manufactures ready for consumption, \$47,649,204; re-exports, \$1,321,478.

INDEMNITY FOR AMERICAN SAILORS

Through the State Department, Acting Secretary Winthrop has received \$14,000 from the Panama government, paid by it as money reparation in the cases involving the maltreatment of American naval officers and seamen at the hands of the police of that republic.

Of the amount, \$5,000 is indemnity in what is known as the cruiser Columbia incident, when several officers in uniform were arrested, locked up and roughly handled in Colon on June 1, 1906. The assault, it is declared, was entirely unprovoked.

An indemnity of \$8,000 will be paid to the relatives of Charles Rand, a boatswain's mate on the cruiser Buffalo, who was killed in Panama in September, 1908, and \$1,000 will be given to Joseph Cieslik, a sailor of the same vessel, who was stabbed at the time Rand was killed. Panama has also agreed to make other amends to the United States Government for the indignities suffered by these men.

England is experimenting with Chinese products from the British refrigerating plant at Hankow. On July 30, a fast steamship arrived at London with the following provisions: Wild fowl, 42,800; snipe, 43,312; pheasants, 515; deer, 2,245; hares, 333; hogs, 4,533; chickens, 26,562; domestic ducks, 21,726; geese, 112; eggs, 21,048 cases. The eggs are broken into tins and then frozen, two tins in a case, each tin weighing 28 pounds. (The National Provisioner, on authority of dispatches from London, states that the hogs sold well in the English wholesale market, but the public would not buy the meat, even at 25 per cent. below the prices charged for other imported hogs.) The United Kingdom imported from the United States in 1908: Bacon, \$29,406,211; hams, \$11,608,548; fresh pork, \$994,080. Denmark and Canada also supply pork in large quantities.

CHARTER MARKET

While wheat is arriving at the warehouses slowly, all fear of a car shortage is over. Twenty to twenty-five carloads a day are coming in and this number shows signs of increasing steadily. Exporters estimate that over 90 per cent of this season's crop is still in the hands of the farmers, who are in a position to hold the grain in the expectation of securing a dollar a bushel. In the meantime there is a large amount of available tonnage either awaiting charter or on the way to North Pacific ports for which there is no cargo in sight.

Mail advices from Liverpool give prevailing rates from South Australia to the United Kingdom at 22 to 25 schillings. This is a stronger market than has been known for some time, and it is probable that many of the disengaged vessels which have been tied up at Coast ports for a year or more will receive orders to proceed to Sydney Heads in ballast. Of the disengaged craft, there is a long list in Portland harbor, the Leyland Brothers being the flagship.

Owing to the recent burning of the Portland Flouring Mills and grain docks, several vessels booked to load at Portland, will be diverted to Puget Sound, among them one of the regular steamers of the Portland-Asiatic line.

The Norwegian steamer Nordstjernen, which was bound from the coast of Peru for Puget Sound, in hope of securing a wheat charter, has put into Honolulu short of food.

For the eight months of the fiscal year the wheat exports from the United States have not been much more than a third of the quantity which was dispatched during the corresponding period of 1908, according to a bulletin of statistics received from the Department of Commerce and Labor. In the eight-month period ending with August the foreign shipments totaled but 19,508,600 bushels, as against 54,075,252 bushels during the same months last year.

None of the ports has made the showing as during the previous season. As usual, New York heads the list, with a total of 5,290,115 bushels. Chicago comes second with a shipment of 2,854,167 bushels, it being the first time in recent years that the Windy City has ever made much of a showing in wheat exports. Philadelphia exported 2,401,410 bushels, Baltimore 1,735,632 bushels, Duluth 1,397,004 bushels, Portland 1,053,002 bushels, and the combined ports of Puget Sound 1,100,624 bushels.

Astoria's fight to make it instead of Portland the grain shipping port of the Northwest, will receive its first official recognition by the Interstate Commerce Commission here, when Commissioner E. P. Clark will listen to Astoria's plaint. Briefly summed up, Astoria wants the same rate on wheat that is granted to Portland, in spite of the fact that it has not now any elevator or dock facilities to handle any tonnage, and would be under the necessity of spending at least \$1,000,000 (Astoria's own estimates) in order to handle either rail or cargo shipments.

The Transpacific Freight Bureau, which includes the Canadian Pacific, Nippon Yusen, Portland and Asiatic, China Mutual Steam Navigation, Ocean Steamship, Great Northern, Bank Line Limited, and Osaka Shoshen companies, operating steamships from Puget Sound, has

issued a supplementary tariff folder applying to apples from Seattle, which are \$6 a measurement ton to Yokohama, Kobe, Nagasaki, Manila, Moji, Hongkong, and \$6.50 a ton to Shanghai. Old glass in barrels or boxes is \$8 a ton dead weight to the first six ports and \$8.50 to Shanghai. Lard and lard compound is \$6 a ton dead weight to the first ports and \$6.50 to Shanghai. In addition are quoted rates to Cebu and Iloilo by way of Manila, which are \$4 a 20-cwt. for flour and \$4.75 a ton for general merchandise, either weight or measurement. The rate to Zamboanga on flour is \$6 per 20-cwt. and \$6.75 a ton for general cargo.

Freight rates for transporting lumber coastwise have increased from \$3 to \$3.25 and \$3.50 a thousand feet during the last few days, and some of the operators of tonnage look for a more decided increase before the fall months are far advanced. The increase has been put into effect when practically every steam schooner on the Coast is in regular commission, and many of the sailing vessels, which formerly operated exclusively in the coastwise trade.

Lumber rates from Puget Sound, reported by the Ship Owners' Association of the Pacific, are as follows:

San Francisco, \$3.25; San Pedro, \$3.75; San Diego, \$3.75; other Southern California ports, \$3.75; Hawaiian Islands, \$5; Guaymas, \$5; Santa Rosalina, \$6; Sydney, 31s 2d-32s 6d; Melbourne or Adelaide, 36s 3d-37s 6d; Port Pirie, 36s-3d; Freemantle, 40s; Hongkong, 33s; Shanghai, 30s; Kiaochow or Weihaiwei, 30s; Port Arthur, 30s; Taku or Newchang, 30s; Kobe, Yokohama or Nagasaki, 30s; Valparaiso, f. o. (2-6 less direct), 41s 3d-42s 6d; Callao, 38s 9d-40s; Cape Town, 52s 6d; other South African ports 52s 6d.

The list of recent charters reported follows: Schooner William Nottingham, Grays Harbor or Puget Sound to Callao, 38s 9d; schooner Wilbert L. Smith, Grays Harbor to Callao, 40s; barkentine Amaranth, Puget Sound to Sydney, 32s 6d; schooner Taurus, Puget Sound to Mazatlan (ties), \$5.00; barkentine Amazon, Grays Harbor, Columbia River or Willapa to West Coast (direct), 40s; ship Drummuir, San Francisco to Manzanillo (railroad material), private terms; E. B. Jackson, Grays Harbor to Callao or Mollendo, 40s; steamship Greenwich, Puget Sound or British Columbia to two ports Australia (Sydney, Melbourne, Adelaide or Port Pirie), 31s 3d.

French bark Leon Blum, wheat, Portland to United Kingdom; option of Puget Sound or San Francisco loading British steamer Hyndford, lumber, Puget Sound to Australia. Norwegian Steamer Guernsey, lumber, Portland to Shanghai; October loading, British Steamer Earl of Douglas, wheat, Portland to Europe at 30s. Schooner H. K. Hall, lumber, Puget Sound or Portland to Sydney at 30s; option of Adelaide at 35s. French bark General De Sonis, coal, Newcastle, Australia, to Puget Sound and take outward cargo of wheat for Europe. British Steamer Launton, wheat, Portland or Puget Sound to Europe at 30s. Steam Schooner Excelsior chartered for a period of six months to engage in coastwise traffic.

The American Maru has arrived at Valparaiso direct from Japan by way of Hongkong in 47 days. The Toyo Kisen Kaisha Company have also placed two other steamers in this service, which will include the west coast of South America, south to Valparaiso.

The hop crop of Austria for 1909 is about one-fourth that of 1908. 2,754,000 pounds of the 1908 crop are still on hand and varies in price from \$20.30 to 36.54 per 220 pounds. The price of the 1909 crop will be from \$28.42 to \$52.78 per 220 pounds.

MEANING OF THE NAMES OF SHIPS

(From the Louisville Courier-Journal.)

A correspondent writes to a New York paper complaining that the nomenclature of the ships of all nations is utterly misleading and ineffectual if it is intended to facilitate a guess at their flag, and that such names as *Lusitania* and *Arabac* and *Canopic* convey no information worth mentioning. The point, however, is not well taken. Names in the merchant marine of all countries and of Great Britain more particularly, follow for the most part a prescribed plan; to one at all familiar with sea-faring terms they declare at once the home of the ship and the fleet to which it belongs.

Ever since the first Cunarder took the water the line has distinguished its boats by names of which *Scotia* and *Asia* were an early type; after a while, having exhausted the geography, fell back to mythology with *Urania*; only to return to a more classical map of the world with *Umbria*, *Mauretania* and *Etruria*.

The White Star Line, on the other hand, adopted titles of which Germanic and Britannic are familiar types, and it has never varied; the so-called American Line had a penchant for cities—*City of Rome*, *City of Berlin*, and others; the Atlantic transport boats have kept rigidly to Indian names beginning with the letter M—*Menominee*, *Minnetonka*, etc.; the Red Star pins its faith to *Friesland* and *Zeelands*; the Holland-American to that endless Dutch chain of which *Statendam* and *Rotterdam* immediately occur, while the old *Guion* Line, most comfortable of Transatlantic carriers, began with the States alphabetically, as in *Alaska* and *Arizona*. The Canadian Pacific has a line of *Empresses*, somewhat far-fetched, as, for example, *Empress of Ireland*; while the Allan boats, in *Grampian*, *Hesperian*, *Pretorian*, throw the net wide.

When the North-German Lloyd had made room for all the Kaisers, including *Barbarossa*, and had sprinkled in a liberal supply of royal and imperial scions of lesser note, it took a turn at such notabilities as the *Grosser Kurfuerst*, or *Great Elector*, culminating with *George Washington*, the last word in ocean marvels. Its rival, the *Hamburg-American*, appears to have no plan—it honors *Moltke* and *President Grant*, *Amerika* and *Kaiserin*, with a noble impartiality.

The French have their provinces of the old regime, *Savoie*, *Touraine*, *Gascogne*; the Italians are loyal to their own beautiful *Veronas* and *Taorminas*, and everyone who has been to *Havana* in the *Winter* or *Bar Harbor* in the Summer knows just where to find the *Mascotte* and the *Olivette*.

And, as in the fleets of peace, so also in the caravels of war, though here the names in all the navies are supposed to indicate a specific recognizable class. The United States intended its first line of battle to be sponsored by the States and Territories; first-class cruisers by great cities; and smaller fry by cities of which *Helena* and *Paducah* are prototypes. The colliers favored the classics, and nefarious reptiles stood for the mosquito fleet. England renews and keeps alive her old honored names, her *Victories* and *Temeraires*, her *Bellerophons* and *Indomitables*, her *Nelsons*, *Collingwoods* and *St. Vincents*. France is literary with *Diderot*, revolutionary with *Danton* and a hero-worshiper with *Jean-Bart*; and Japan has a navy list of great power and greater mystery. Confusion might occur over a *Paul Jones* flying the tricolor and a *Vainqueur* under the ensign of *St. George*, but those are isolated cases, and, as a rule, the fleets present a historic survey of real interest.

Name Is Selected for New American-Hawaiian Steamer.—The American-Hawaiian Steamship Company has selected the name "*Honolulan*" for the new passenger and freight steamer now in course of construction in the East. In choosing this name the company followed out its custom of naming its vessels after some state or city in the Union and ending that name with the suffix *an* or *n*.

The *Honolulan*, which will be completed about March 1, 1910, will ply between San Francisco and Honolulu. The steamer will have accommodations for thirty-six first-class passengers and 8,000 tons of freight. The names of the sister ships of the *Honolulan* will be *Georgian* and *Kentuckian*.

LOCK VS. SEA-LEVEL CANAL ON THE ISTHMUS

On June 29, 1906, Congress decided that the Isthmian Canal should be of the lock type. For some time and to the present day many attacks have been made against the decision of Congress.

The recent report of Lieutenant-Colonel George W. Goethals, U. S. A., chairman and chief engineer, Isthmian Canal Commission, in charge of work on the Isthmus, and personal observation of many eminent foreign and American engineers have demonstrated the practicability and economy of construction of the lock in preference to the sea-level canal. Professor E. V. Reynolds, dean of the Yale Law School, recently visited the work of construction on the Isthmus, and returned to the States a strong adherent of the lock-type canal.

The Treasury Department has appointed Andrew McIntosh, of New York, appraiser of all foreign built yachts owned by Americans. He will determine the tax which the owners of the yachts are compelled to pay under the Payne tariff law. All told there are eighty such craft in this country, fifty of which are owned in New York. The duty on these vessels is either \$7 a ton annually, or 35 per cent advalorem, to be paid only once.

The whaling bark *Josephine* has arrived at New Bedford, from a two years' voyage to Crozet, having taken 13,000 pounds of whalebone, 500 barrels sperm, and 1,000 barrels of whale oil. The season in Crozet was the worst in seven years, the *Josephine* doing better than any of the other vessels.

European steamship companies and the state railroads of the Dominican Republic, have, in combination, made a reduction of \$7.50 per ton in freight shipments of tobacco from Santiago to Hamburg; thus enabling Germany to take the bulk of leaf tobacco of the Republic. The total value of the product in 1908 was \$1,009,608, of which Germany received \$969,866.

The imports of tobacco and its manufactures into Norway in 1907 were: Leaf tobacco, 3,828,964 pounds, valued at \$589,144, of which, 2,219,074 pounds, valued at \$337,904, were from Germany, and 1,204,192 pounds, valued at \$183,372, were from the United States; cigars and cigarettes, \$325,875, nearly all from Germany and the Netherlands; all other products, \$31,718.

The recently organized Isthmian Tobacco Company, are importing dry leaf tobacco from Kentucky and Virginia, and are dampening and preparing it on the Isthmus. Information has been received that the British-American Tobacco Company (Limited) will also import the dry leaf into Panama and prepare it in that market.

India produced over 12,000,000 tons of coal in 1908; comparative years indicate that the output is increasing.

MARINE INTELLIGENCE

NOTICE TO MARINERS

Office of U. S. Lighthouse Inspector, Twelfth District, 813 Mutual Savings Bank Building, 704 Market Street, San Francisco, Cal., September 28, 1909. (Notice to Mariners, Suisun Bay, California).

Notice is hereby given that Echo Boards have been established at the following points:

Middle Point Echo Board is located about 40 feet west and to the rear of Middle Point Light, southerly side of the bay, and consists of a white, three-wing, galvanized iron structure, 19 feet high, on piles, and is marked "Middle Point" in large black letters. The middle wing is 36 feet long, and joined to each side wing (about 32 feet long) at an angle of about 82 degrees.

Stake Point Echo Board is located immediately behind and about 15 feet distant from Stake Point Light, southerly side of the bay, and consists of a white, three-wing, galvanized iron structure 19 feet high, on piles, and is marked "Stake Point" in large black letters. The middle wing is about 36 feet long and joined to each side wing (about 32 feet long) at an angle of about 96 degrees.

New York Slough East End Echo Board is located about 60 feet north of New York Slough East End Light, at the junction of New York Slough with the San Joaquin River, and consists of a white, three-wing, galvanized iron structure, 19 feet high, on piles, and is marked "New York Slough, East End," in large black letters. The middle wing is about 32 feet long and joined to each side wing (about 32 feet long) at an angle of 90 degrees.

A vessel running the usual courses near these boards may expect to hear the echo of its whistle at a distance of about 600 feet.

By order of the Lighthouse Board.

W. G. MILLER,
Commander, U. S. N., Inspector.

Office of U. S. Lighthouse Inspector, Twelfth District. Notice to Mariners, Humboldt Bay, California. (List of Lights and Fog Signals, Pacific Coast, 1908, page 24, No. 66, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 38.)

Notice is hereby given that Humboldt Beacon Light No. 1, marking a shoal making out beyond the shipyard wharf on the west side of channel in northerly part of Humboldt Bay, California, was blown into the bay September 22, 1909. It will be replaced as soon as practicable.

TIDE TABLE TO WEEK ENDING SATURDAY, OCTOBER 16
Golden Gate Entrance to San Francisco Bay.

SEPTEMBER

Moon	Day of		Time and Height of High and Low Water.							
	W.	Mo.	T.	H.	T.	H.	T.	H.	T.	H.
1st quar	Sun	19	2 40	4.1	7 50	2.3	13 48	4.9	20 45	1.1
	M	20	3 47	3.8	8 23	2.7	14 19	4.9	21 40	1.0
	Tu.	21	5 13	3.7	9 10	3.2	14 57	4.9	22 38	0.8
	W	22	6 41	3.8	10 12	3.3	15 57	4.9	23 42	0.5
	Th.	23	7 48	4.2	11 30	3.4	17 18	5.0		
Full	F	24	0 45	0.3	8 28	4.4	12 47	3.4	18 40	5.1
	S	25	1 43	0.0	9 04	4.7	13 54	3.0	19 52	5.4
	Sun	26	2 40	0.2	9 38	5.0	14 51	2.5	20 53	5.6
	M	27	3 42	0.2	10 10	5.3	15 42	1.8	21 49	5.7
	Tu.	28	4 08	1.0	10 45	5.5	16 30	1.2	22 44	5.8
E	W	29	4 57	0.2	11 18	5.7	17 20	0.7	23 40	5.7
	Th.	30	5 40	0.6	11 53	5.7	18 07	0.4		
OCTOBER										
N	F	1	0 38	5.5	6 20	1.1	12 30	5.7	18 53	0.1
	S	2	1 59	5.2	7 03	1.7	13 10	5.7	19 47	0.1
	Sun	3	2 47	4.8	7 48	2.3	13 50	5.6	20 47	0.1
	M	4	4 07	4.5	8 38	2.9	14 40	5.5	21 53	0.0
	Tu	5	5 40	4.5	9 40	3.2	15 37	5.3	23 00	0.0
3d quar	W	6	6 45	4.5	10 58	3.5	16 47	5.1		
	Th	7	0 10	0.1	7 47	4.7	12 30	3.5	18 05	5.0
	F	8	1 13	0.1	8 35	4.8	13 47	3.2	19 18	4.9
	S	9	2 06	0.2	9 14	5.1	14 43	2.8	20 20	5.0
	Sun	10	2 48	0.4	9 47	5.3	15 26	2.4	21 17	5.0
A	M	11	3 27	0.6	10 14	5.3	16 03	1.9	22 07	5.0
	Tu	12	4 07	0.9	10 42	5.4	16 38	1.6	22 50	4.9
	W	13	4 40	1.2	11 04	5.2	17 10	1.3	23 32	4.9
	Th	14	5 08	1.5	11 23	5.3	17 48	1.0		
	F	15	0 16	4.8	5 38	1.8	11 45	5.2	18 10	0.7
New	S	16	1 00	4.6	6 07	2.2	12 07	5.2	18 48	0.5
	Sun	17	1 50	4.3	6 38	2.6	12 28	5.2	19 30	0.4

Time used, Pacific Standard, 120th Meridian W.

0h—midnight 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator.
A. P.—Moon in apogee or perigee.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, Twelfth Lighthouse District.

Office of Lighthouse Inspector. Notice to Mariners, Piedras Blancas, California. (List of Lights and Fog Signals, Pacific Coast, 1908, page 12, No. 17, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 19.)

Notice is hereby given that the regular characteristic (fixed white, varied by a white flash every 15 seconds) of the light at Piedras Blancas Light Station, California, changed to fixed white March 1, 1909, pending repairs to the illuminating apparatus, was re-established September 20, 1909.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, Twelfth Lighthouse District.

John McNulty, in charge of the local branch of the hydrographic office, is in receipt of the following information reported to the branch office at Port Townsend by Captain John O'Brien, master of the steamship City of Seattle: Light on Hog Rocks, Alaska, was not burning on morning of September 17. Also that for 10 miles north and south of Swanson Bay, Graham Beach, the channel is filled with logs and refuse from the local mill, making a dangerous obstruction to navigation.

Information has been received from the branch hydrographic office at Port Townsend that the red can buoy marking a rocky patch off the west approach to Point Wilson, near Port Townsend, Wash., has gone adrift.

J. C. BURNETT,
Lieutenant, U. S. N., in Charge.

HAWAIIAN ISLANDS

Makanalua Peninsula, Kalawao, Molokai, Light Station Established.—September 2, 1909, there was established on Kalawao, northly part of the Peninsula of Makanalua, making off from the northly shore of the Island of Molokai, nearly midway of the length of the island, and about 1 1-3 miles to N'd and E'd of the Kalaupapa leper settlement, a second order light, flashing white every 20 seconds

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HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

Place	Feet	Date	Remarks
Grays Harbor	16	Sept. 10	Bar buoys now right in channel.
Willapa Bay	27	Sept. 5	No change in channel; 16 ft. M. L. W. in channel to South Bend
Columbia River	23	Sept. 16	25 feet in channel to Portland
Nehalem River	6	Sept. 23	Channel 1/4 mile south of bar buoy and very shifting
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	9	Aug. 10	Channel shifting to south.
Siuslaw River	5	Sept. 11	
Umpqua River	9	Sept. 1	Keep 300 to 400 feet north of inner harbor buoy.
Coos Bay	17	Aug. 1	12 ft. at L. W. to North Bend; 11 ft. at L. W. to Marshfield.
Coquille River	8	Sept. 4	Channel well to N. and spit, makings south from end N. jetty.
Rogue River			No opportunity for soundings lately; before rise there was 7 feet on bar.
Klamath River		Aug. 27	Very shallow; mouth of river almost closed.
Humboldt Bay	23	Sept. 19	21 ft. in straight channel 20 ft. in channel.
San Pedro Bay	19	Aug. 6	No change in channel.
San Diego Bay	25	Aug. 8	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

The light is 213 feet above the water and 120 feet above the ground, shown from an octagonal, pyramidal concrete structure, surmounted by a black, cylindrical lantern, and is visible about 24 miles in clear weather, the observer's eye 15 feet above the water.

The approximate geographic position of the light, as taken from Coast and Geodetic Survey Chart No. 4,100, is: Latitude, north, 31 degrees 12 minutes (20 seconds); longitude, west, 156 degrees 58 minutes (25 seconds).

Mokapu Islet—110 degrees 45 minutes true (SE by E 3-16 E mag.), 3 miles.

Okala Islet—121 degrees 20 minutes true (SE 5-16 E mag.), 3 miles.

Kalaupapa Light—335 degrees 40 minutes true (N by W 1-4 W mag.), ¼ mile.

There is a concrete oilhouse about 1-10 mile NNW'y, a concrete water tank about 90 feet SW'y, and a keeper's dwelling about 1-10 mile W'y from the light.

On the same date, Makanalua Light Station, a fixed red lens lantern light exhibited from a mast, located about 2,000 feet to the northward of the new lighthouse tower, was permanently discontinued.

By order of the Lighthouse Board.

V. S. HOUSTON, Lieutenant, U. S. N.,
Assistant to the Inspector, Twelfth L. H. District.

Office of U. S. Lighthouse Inspector, Twelfth District, 813 Mutual Savings Bank Building, 704 Market Street, San Francisco, Cal., September 30, 1909. Notice to Mariners. Blunts Reef, California. (List of Lights and Fog Signals, Pacific Coast, 1908, page 24, No. 60, and list of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 36.)

Notice is hereby given that Blunts Reef Light Vessel No. 83, off Cape Mendocino, Cal., parted her moorings September 28 and proceeded to San Francisco. She will be replaced as soon as practicable.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, Twelfth L. H. District.

PORT FACILITIES

Callao, Peru

This port is situated in latitude 12 deg. 4 min. N., longitude 77 deg. 15 min. 44 sec. W. It is the seaport for Lima, with which it is connected by railroad.

The harbor is a very good one. Pilots are necessary. They are reliable, and the charge for pilotage is moderate. Pilot regulations are supervised by the captain of the port.

The chart used was the British Admiralty General Chart, No. 1323, published 1840, with corrections to 1897. It was found to be correct in every respect.

U. S. Hydrographic Office Chart, No. 784, (Callao Bay and vicinity), published in 1885, with corrections to October, 1907, price 20 cents, shows this location on a scale of about 1½ inches to the nautical mile.

There are good wharves and wharfage rates are moderate. Labor is Peruvian and is plentiful at moderate costs. Peruvian money is used at the usual rate of exchange.

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Collection of the tonnage tax under the tariff law recently enacted by Congress will commence on October 5th. Notice to that effect has been sent to collectors of customs at Pacific Coast ports. Attention is called to the proclamation of President Taft, dated August 6, revoking the proclamation of former Presidents, who had suspended the collection of tonnage duties.

The present tariff law provides that a tonnage duty of 2 cents per ton, not to exceed in the aggregate 10 cents per ton in any one year, be imposed at each entry on all vessels from any foreign port or place in North America, Central America, the West India islands, the Panama islands, the Bermuda islands, or the coast of South America bordering on the Caribbean sea, or New Foundland, and a duty of 6 cents per ton, not to exceed 30 cents per ton per annum, be imposed at each entry on all vessels from any other foreign port, not, however, to include vessels in distress or not engaged in trade.

This season's crop of raisins in the Smyrna district of Turkey is estimated at 145,230,000 pounds. The quality is not yet definite, as weather conditions in July and August have great influence on the crop. It is feared, however, that the price of sultanias this year will be very low.

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SATURDAY, OCTOBER 16, 1909

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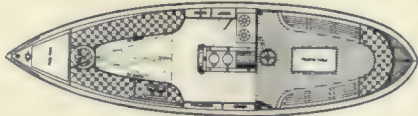
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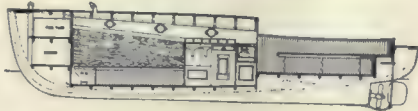
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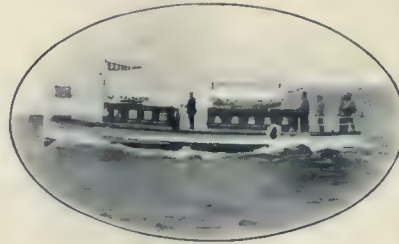
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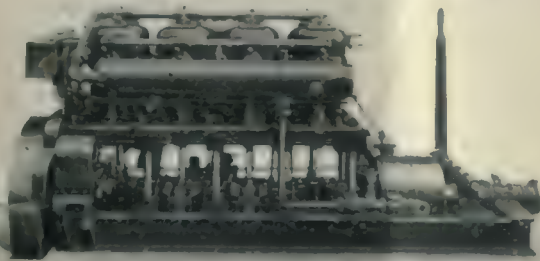
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Volume II

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Number 20

President William H. Taft's Tour of the Pacific Coast.

Each of the twenty-seven presidents of the United States has accepted the office of Chief Executive surrounded by responsibilities prophetic of which were the questions that confronted Washington in 1789. Each four-year term has developed a change in economic conditions proportionate in magnitude and importance to the progress of the four-year periods. Of the many who have been called, the chosen few have represented respective individualities, and each has contributed a one-twenty-seventh part of American independence and prosperity. As in other walks of life, opportunities have offered whereby for the time being the characteristics of one president may have risen above those of his predecessors. Time has demonstrated that each had a due regard for the honors conferred upon him, the grave responsibilities and dignity of his position, and that he was equal to the emergencies of his day.

The rapid progress of the United States has developed the science of statesmanship to the same extent as that of all others. We of today commend or criticize from the present standard, to which the ambitious must submit and be gauged accordingly. Of the late presidents, in some instances party platforms have created vital questions, with which the Chief Executive has dealt and adjusted with credit to himself, the country as a whole and his constituents. Others, again, of the last-named class, in the absence of a serious question, have gone beneath the surface and brought forth problems systematically or otherwise obscured for successful results of the modern national campaign. It is hardly necessary to mention the name of ex-President Roosevelt as the first student and dean of this policy, and who, almost within the hour after taking his oath of office, reappointed the entire cabinet as it then stood, announcing that it would be his purpose to carry out absolutely unbroken the administrative policy mapped out by his predecessor, the late President William McKinley. His first message to Congress contained many suggestions, and throughout his terms of office advocated legislation giving the Federal Government greater control of the affairs of corporations of all kinds. In spite of any precedents to warrant him, Theodore Roosevelt established the present standard of American statesmanship. As an executive he is distinguished as a harmonizer of conflicting interests; his resourcefulness in devising, and boldness in attempting new methods of accomplishing results; his plan of coming into close touch with the people at large, resulted in suggestions in his messages to Congress, some of which unfortunately did not receive sufficient support to become

laws of the country. During one of his visits to the states remote from Washington in 1903, President Roosevelt was universally and generously welcomed by the citizens of San Francisco. On this occasion he fully realized the upbuilding of a United States merchant marine, and in a memorable address delivered at the Mechanics' Pavilion in May he spoke on the subject as follows: "Now, men and women of California, in our own day, the greatest of all the oceans, of all the seas, and the last to be used on a large scale by civilized man, bids fair to become in its turn the first in point of its importance. The empire that shifted from the Mediterranean will, in the lifetime of those now children, bid fair to shift once more westward to the Pacific. When the 19th century opened, the lonely keels of a few whale ships, a few merchantmen, had begun to furrow the vast expanse of the Pacific. That was but a century ago; and now, at the opening of the 20th century, the change is so vast that it is well-nigh impossible for us to estimate its importance.

"It behooves all men of lofty soul, fit and proud to belong to a mighty nation, to see to it that we keep our position in the world, for our proper place is with the great expanding peoples, with the people that dare to be great, that accept with confidence a place of leadership in the world. All our people should take that position, but especially you of the Pacific Slope, for much of our expansion must go through the Golden Gate. And inevitably you who are seated on the Pacific must take the lead in and must profit by the growth of American influence along the coasts and among the islands of that mighty ocean, where East and West finally become one."

Under this standard and inheritance, William H. Taft was inaugurated President of the United States on March 4, 1909. Probably no other president entered upon the duties of the office under as favorable conditions; certainly none other had the same opportunities in such an active and broad field of national usefulness. His official responsibilities and achievements at home and abroad, qualified President Taft to fill the position on still greater advanced lines than those of his worthy predecessor and dearest friend.

Four years at its best is but a short time as President of the United States. The present foretells that we are and will forever remain at peace with all the peoples of the earth. Our industrial past, present and possibilities of the future is a fixed principle, inherent with every man, woman and child of the community. Morally, intellectually and socially we are building for posterity and towards an ideal civilization. Within our own great fam-

ily we are happy and contented. Our history is a straightforward, reasonable history of liberty and prosperity. Do these few brief facts indicate that we shall be permitted to advance, without interruption or interference from other nations eager to rule the world on a less humane basis? If we could have collected our short history from any other state of man, American ideals would still remain the pathway to the pinnacle of perfection.

Possibly the greatest critic, or bitter opponent has never conceived a commonplace administration under President Taft. By those who know him best, it has been predicted that four years hence American history may pause and review an era of progress, accomplished by 20th century Americanism, and distinctive features of which will be the strong personality of William H. Taft, the strictest sense of justice by the American Government toward its own people in their civic, commercial, industrial and economic relations, and toward all mankind in general. Materials are necessary to build administrations; if not at hand, such must be created; and President Taft was quick to discover this necessity. Before Congress had adjourned, Congressional committees were appointed to visit all foreign countries with commercial ambitions, and our insular possessions, with a view to close investigation of details regarding commercial policies and trade extensions, and the President arranged his itinerary for a tour of the Western States.

On the eve of his departure on a 13,000 mile journey, and while yet inhaling the industrial atmosphere of the Atlantic Coast, President Taft made a notable speech before a large and appreciative audience at the Hotel Touraine, Boston, Mass., on the evening of September 14. In a brief review of national matters generally, the President stated the objects of his proposed trip in the following words: "I am on the eve of beginning a journey of 13,000 miles in length, which will enable me to see tens and hundreds of thousands of my fellow-citizens, and enable them, I hope, to see me. Occasionally I hear a query why I should start off on such a trip, and what particular good does it do anybody? Well, it is certainly not going to be a pleasure trip, although I shall enjoy it. It will involve much hard work, and a great deal of mental effort to think of things to say, and to say them simply and clearly, so that they can be understood.

"On the other hand it will certainly give me a very much more accurate impression as to the views of the people in the sections which I visit. It will bring closely to me the needs of particular sections, so far as national legislation is concerned, and I believe it will make me a wiser man and better public officer.

"I ought to be able to explain to the people some of the difficulties of government and some of the problems for solution from the standpoint of the Executive and the legislator as distinguished from that of the honest but irresponsible critics. The personal touch between the people and the men to whom they temporarily delegate power, of course, conduces to a better understanding between them."

This statement covered the entire range of national affairs, and later embraced the more important questions, including the banking and monetary system, the interstate commerce laws, the control of trusts, the conservation of natural resources, the land system, pure food laws, and sectional conflict.

In closing his speech on this occasion, the President said: "It is true that at times public questions will be given a local color by what is thought to be a local benefit, as distinguished from the general and the national benefit. But such attitude is generally temporary, and it takes but a few years of business experience—it takes but a panic or two—to present the most convincing evi-

dence that in this country we are all in the same business boat, and that the prosperity of one section adds to the prosperity of the other, and that business disaster in one section is only the forerunner of business depression and disaster in another.

"Things are not perfect, but we have made progress. We have a right to be optimistic and believe further progress is likely; that conditions are improving, and that we may continue to maintain for all sections of the country that equality of opportunity which it is the highest object of a well-conducted government to preserve."

There is no other combination of words in the English language that could possibly illustrate a higher order of statesmanship, and combines a sentiment that may be depended upon to touch a responsive chord in the heart of every true and loyal American citizen.

For several days in the earlier part of his journey, the President dealt with national questions, of greater or less importance, confining himself to those of the country as a whole. Not, however, until he had reached Lake Minnetonka, Minnesota, yet early in his tour, and somewhat distant from the industrial center of the United States, did he touch on the subject of a merchant marine. Whatever inspiration may have been obtained at this point, subsequent journeyings have merged all other questions into that of trade expansion by means of American ships. The spontaneous outbursts of enthusiasm at the slightest mention of this subject would indicate the material from which to construct an ideal administration. Time worn and much abused, this subject presents an almost impassable barrier. The circular and unbroken lines of resistance to a proper solution of this question embrace every iota of sentiment contained in the closing remarks of the president's speech at Boston. Taken word for word, the statement involves a just and equitable commercial policy, a question upon which, heretofore, internal corporate capital, combined with foreign assistance, has had a direct influence.

Passing rapidly over a section of the country rich in mines, agriculture and timber, with occasional stops, the President was received with honors befitting the Chief Executive and the man. Approaching the Pacific, the President gathered strength and information to still further appreciate the importance of a merchant marine. Throughout the journey thus far, the President readily adjusted himself to the section visited, and minute conditions, and whether speaking to a gathering of school children or host of diplomats, his speeches were invariably happy and best suited for the occasion. Markedly noticeable, however, was his frequent reference in some form or other to rivers, harbors, commerce, trade extension, and kindred items of the merchant marine subject.

At Seattle the first relief measures in behalf of American shipping were suggested in the following words: "I need not tell you of the inadequacy of the American shipping marine on the Pacific Coast and the growing power of Japan for commercial purposes in this regard. Japan is one of the most active and generous countries in the matter of subsidies to its merchant marine, and the effect is only too visible in an examination of the statistics.

"For this reason it seems to me there is no subject to which Congress can better devote its attention in the coming session than the passage of a bill which shall encourage our merchant marine in such a way as to establish American lines directly between New York and Eastern ports and South American ports, and between our Pacific Coast ports and the Orient and the Philippines.

"It behooves us Americans, interested in pushing our trade into every quarter of the globe, to take steps to repair a condition that exists in respect to our merchant marine that is humiliating to our national pride and most

burdensome to us in competition with other nations in obtaining international trade.

"We earn a profit from our foreign mails from \$6,000,000 to \$8,000,000 a year. The application of that amount would be quite sufficient to put on a satisfactory basis two or three Oriental lines, and several lines from the East to South America."

Combining the remarkable abilities of President Taft with his wide experience in national and international affairs, and his closely analytical mind, the words demonstrate a profound interest in the welfare of the country as a whole, though somewhat lacking in detail as to cause and effect. Material is not wanting to cast into monumental form the complete subject of an American merchant marine. The statement is not an arbitrary one, or chosen for other purposes than to reveal an abundance of facts, substantiated by truths unknown to the most eminent opponent of the merchant marine subject. Given an opportunity for investigation of both sides of the question, as contained in the above statement, but one result would follow. Argument on the one side is privileged to come out into the open and expose every known element of the subject; while on the other hand many are privileged to witness a mirage on the desert of ship subsidies.

Alaska and free trade with the Philippines occupied a great part of the time and attention of the President; mainly so to the extent of how these interests would best be subserved in the building of a merchant marine. Sacramento made preparations to receive the President with the true California spirit, and seemed well repaid in the President's expression of gratitude for the preparations made for his reception and the royal manner in which he was received and entertained. The stop at Berkeley had been prearranged at the request of the President before leaving the Atlantic Coast. A previous visit to Berkeley had endeared the President to a number of its people, prominent in educational and legislative matters. Possibly the inspiration to be gained from a direct view of the Golden Gate from the mainland, by which to complete the circuit of the bay cities and pay just tribute to the commercial advantages of San Francisco Bay was a further inducement for a stop at this picturesque city of homes, and the educational metropolis of the West. Owing to the element of time, Berkeley and Oakland divided honors in their reception and entertainment of the President. Both cities were complimented for their efforts for harbor improvements, and advised to unite and vote generously for that purpose.

There are no other conditions under which a public speaker expresses himself with greater freedom than a feeling that he is amongst friends with mutual interests and opinions. Thus far on his journey from Puget Sound to San Francisco the President had met the representative men of the Pacific Coast; men as fearless in their expression of opinion and daring in their enterprises as they are willing to extend the generous hand of hospitality and good-fellowship. Such were the conditions under which the Presidential party arrived in San Francisco at mid-day on Tuesday, October 5. The President anticipated the character of his reception, and was prepared for the many unremittent hours, in which he was to gather a fund of material whereby to assist in raising his administration above the commonplace. All things were favorable for a typical California welcome to the distinguished guest and the members of his party, nature, as usual, participating in the appointment of an ideal day.

California was fortunate indeed to have at home on this occasion its foremost Congressional officers, State officials and representative citizens to crown President

Taft's visit as one of the most important events in the history of the State, and one that bids fair to have a direct influence on the future of the United States. Prompted somewhat by Governor James N. Gillett as to the State and Federal necessities of the Pacific Coast, the President disposed of these subjects with characteristic diplomacy, and after expressing his wonderment of the marvelous rehabilitation of San Francisco and characterizing it as the imperial city of the Pacific Coast, he again returned to the merchant marine question, dwelling at some length on this subject, exposing to his hearers some details heretofore considered of minor importance, and quoted from the personal experience and observation of the speaker. Incorporated in his remarks were matters having a direct bearing on the subject of a United States merchant marine.

"You have undertaken to furnish an auxiliary coast artillery force. The United States agrees to equip it and give it instruction, so that if your shores are ever threatened that force will be trained to work the guns for which in the Federal Army we have but about a quarter of the men required.

"Now, I understand that there is a movement in San Francisco to erect an armory for that coast artillery. I sincerely hope that it will succeed.

"You could not do anything that would aid the Government more than in the preparation and the furnishing of such a force. Infantry are good, and infantry we ought to have. But if you will furnish a trained force to man the guns you will give us a force that, under ordinary circumstances if we did not have it, would take at least two, and perhaps three years, to fit men to discharge that duty.

"You are at the gateway of the Pacific. The Philippine Islands have at last had justice done to them, and we are going to have free trade between them and this country. And that trade is going to grow; it may be slow at first but it will grow substantially and be of such mutual advantage to this country and the Philippines that when the time comes for us to say to them, 'Go if you choose, cut off your relations to us; you are fit for self-government,' in my judgment neither they nor this country will be willing to say so.

"I do not mean to say that we should not go on and give them as full a self-government as they desire. But I do mean to say that they will see it to their advantage, as you will, that the bond shall not be broken, and that some sort of relation like that between Australia and England, or between Canada and England, shall be retained, that the markets of each country may be opened to the merchants of the other.

"You have Alaska on the north. Its wealth—though it has produced marvelously, measured by the expectations of those who sat up and threw bricks at Seward for spending seven millions to buy it—nevertheless has hardly been scratched. If I can carry out my purpose and Congress will follow my recommendation, we will have a government in that territory by a commission which shall have legislative powers to attend to the domestic needs of that territory, and recommend to Congress the development of and take advantage of the development that ought to be going on there.

"Congress—and I do not hesitate to say it—has been derelict. It has not done its duty with respect to Alaska. It ought to do it now. I know there is a disposition to say that we ought to give it popular self-government. But I think that those of you that are familiar with the character of the settlements in that territory will agree with me that they have not reached the time when that is the

safest and best method of government for their real development. It is easy to catch the applause of the crowd by saying: 'We are bound to self-government, and self-government is the best government possible.' Well, it is under conditions favorable to it. But there are times and conditions of a temporary character when it is not the best. And we ought to say so.

"Then we are building the Panama Canal. We are digging out of it 3,000,000 cubic yards a month. We shall certainly complete it by the first of January, 1915, and I am hoping, oh, so fervently, that it will be a considerable time before that.

"China is waking up. It is developing as it never has before. Its future is bright with the prospects of increased activity in its industries and the development of its marvelous resources. Its trade must now grow under these conditions, and its international relationship become more and more valuable.

"Japan is showing marvelous advance in its commercial strides. And as it does grow in its commercial success it becomes valuable as a neighbor and a trader and a customer.

"I am in favor of helping the prosperity of all countries, because, when we are all prosperous, the trade of each becomes more valuable to the other.

"As has been said tonight, it is true that the future of the world for the next fifty or one hundred years in progress lies in the Pacific Ocean at your gates. The success of your community as a business community and a trading community is not going to be dependent entirely on whether you have a merchant marine. We have gotten along in a wonderful way in increasing our international trade without any merchant marine at all. But that is no argument, and no reason for saying that we might not have made greater strides and might not have directed that trade much more intelligently had we had ships that helped us to carry that trade to the foreign countries.

"The trade between the eastern parts of the United States and the eastern part of South America is a most valuable one, reaching up nearly to a billion dollars. Of that sum \$250,000,000 is between the United States and South America.

"We have word from our consuls that, appreciating the importance of that trade, European countries are stimulating by subsidies and other means of encouragement that come to the same thing, the addition to the number of sailings of steamships from European ports to South American ports, and that that addition is showing the effect upon the trade and moving more of it proportionately to Europe.

"Now, we have got to do something. We have a protective system in the United States which encourages industries, and we are able to carry it because these industries are completely within our jurisdiction. But when we enter into competition on the high seas we can only control our own ships. We cannot control the ships of other countries. Therefore we must adopt some other method than that which we pursue with respect to the protection of our industries.

"What method is that? I don't know any that commends itself quite as much to me, because it is on a protective principle, as to furnish to those men who will engage in that trade enough money to make the difference to equalize the difference that they encounter in their competition with foreign trade by reason of the greater expense of labor, the greater expense of material, and the greater cost incident to the stricter regulations that we impose with respect to our sailors, and unless we add also

an amount equal to the subsidies which our competing nations give to their own ships.

"That is said to be an undemocratic doctrine. It is said to be a subsidy. Whee, that is awful! it is said, to put money in the pockets of private individuals. As Tom Reed said:

"That man is opposed to the statute because somebody might make a dollar and a half out of it."

"It is not true that we put that subsidy in his pocket to enlarge it. We put that subsidy into the pocket of a private individual or a private corporation to enable him or it to render to us a service—that is, to give us a merchant marine, out of which, with the subsidy added, he shall be able to make only a reasonable profit.

"Now we make \$8,000,000 or \$9,000,000 out of our foreign mails. The proposition is to experiment first by using that profit which we thus make, to pay mail subsidies and establish lines of those subsidies between this Coast and the Orient, between this Coast and Australia, and between the east coast of America and South America.

"Let us try that. Let us see how it works. If it gives us good lines, and those lines by reason of the fact that they carry the United States flag and are put on for the purpose of encouraging American business, do encourage that business—that will be a basis for further trial, further experiment and further building up of a United States merchant marine.

"If, on the other hand, that experiment proves to be a failure, the money that we have spent will be well spent in teaching that it was a failure.

"My impression about the Panama Canal is that the great revolution it is going to introduce in trade, and the trade of the world is the trade between the east and the west coast of the United States. I think it is going to affect the transcontinental lines so as to take from them a large part of the heavy bulk merchandise that cannot afford to and ought not to pay high rates, and to limit their carriage to that kind of merchandise that needs rapid dispatch and is valuable enough to pay the high rates consistent with that rapid dispatch.

"It will also, of course, affect the trade between the eastern coast of the United States and the western coast of South America. For that, with the Panama Canal, will be almost a straight line. If you will look at your geography, you will see it—your recollection of your geography does not tell you that, but if you will put your ruler there you will find that that is just about it. Also, it will develop the trade between the west coast of the United States and European ports.

"Everybody in the United States, I am sure, will feel the benefits of the Panama Canal. How far it will affect the Oriental trade from New York or from Liverpool is a different question. There the competition of the Suez Canal will be so great that the modification will not be, I think, as much as is expected."

The President also enthused upon the subject of the conservation of natural resources, recommending caution in the matter of forestry and the water-power of the country. His discussion of the arid lands was very interesting. Governor Gillett had previously made a vigorous speech, and commendable appeal to the President in favor of building and maintaining a battleship fleet on the Pacific Coast; Mayor Taylor of San Francisco also endeavored to interest the President in the Hetch-Hetchy plan for San Francisco's water supply. Evidently the President's statement made in Oakland held good on this occasion: "It is just as well for the stranger to swim out when he gets into local controversies."

The emphatic declaration of the President in favor

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To what extent have Americans laid claim to original invention of labor-saving machinery and mechanical devices generally? Evidence is not wanting to convince the most skeptical that the people are quick to engage in the manufacture of and ultimately take the lead in the highest development of everything pertaining to the mechanical arts. The greatest engineering problems of the world are the outcome of so-called Yankee ingenuity, of which for many years the American people were subject to much ridicule and adverse criticism; in the latter instance the arguments against frequently reaching the point of absurdity or of searching the realms of antiquity to find opinions whereby to reflect discredit upon American claims to first discovery of a meritorious principle, theory or established fact.

The amusement afforded to willing and irresponsible critics was enjoyed in most countries of the world, marked by a preponderance in those which had control of the industrial world and those who were ambitious to acquire it. In the meantime, American industries were developing, slowly at first, but gradually claiming recognition among the lesser industrially ambitious peoples. Not infrequently the greater nations purchased American machinery, more or less for the purposes of criticism, later developing the system into one of comparison of the weak points of American goods as compared with the so-called superior qualities of foreign articles. These methods had a direct and natural influence upon the industrial development of the United States and the beginning of the present century indicated the extent thereof. American goods were universally sought, and invariably at an advance in price over those of foreign make. The services of American citizens were in demand by foreign governments and private enterprises, and the United States has taken its place as the supreme industrial nation of the world.

The fact of American industrial supremacy can be

stated and upheld with very few words, but the course of its progress from the era of Yankee ingenuity to the present time is a more circuitous route and brings into prominence the question of the conservation of present industrial conditions. The rapidly increasing population warrants a certain amount of security to the industrial system, but which noticeably must be accompanied by a greater ratio of increase in the extension of a market for the products; that is, the extension of American industries offers better opportunities by the sale of the present excess of production to foreigners than is possible in home markets. American industries have recognized this fact in several instances in the various stages of development, bringing them more than once close to the verge of imprudence that required extreme measures and the master minds of America to avoid a crisis.

It is unnecessary here to draw the distinctions between an amount of American-made goods sold in a foreign market and the same quantity reserved for home consumption. We have to deal more with the means of selling in the foreign market. Foreign countries are profiting by American experience in many of the extractive resources of the soil. As a result, the trade of the United States with foreign countries is not developing in its proper ratio, and the result is obvious.

The bureau of statistics quotes per capita as follows:

Population of the United States, 1871.....	39,550,000
Population of the United States, 1908.....	87,189,392
Gain in population in 37 years.....	2.204
Exports of wheat, 1871, per centage of product....	22.3%
Exports of wheat, 1908, percentage of product....	25.71%
Gain in exports of wheat in 37 years	1.341
Exports of manufactures, 1871, percentage of product	20.86
Exports of manufactures, 1908, percentage of product	40.91
Gain in exports of manufactures in 37 years.....	2.005

Reduced as in the above form, the figures appear extremely small. The margin is more striking when the figures given for the population are considered, and illustrates the ratio of wheat exports more vividly, and also the proportion of export manufactures. If the wealth of the United States is being used in the development of its industries, or foreign capital is being used for the purpose, without a reasonable excess in export of the products whereby to pay interest on the borrowed capital and ultimately the principal, and at the same time maintain industrial supremacy, the figures quoted from the statistics offers the best possible means of showing numerous inconsistencies in the present system.

It must be evident that borrowed foreign capital is producing wealth in the United States at a more rapid rate than the cost of borrowing; but, certainly, not at the same rate as shown in its material advance; and one of two things must inevitably happen, either establish a foreign market for American goods that will bring capital into the country, that shows a profit in place of a loss, or the too frequent recurrence of periods of depression, recovery from which has been proven by many and varied facts, and the gradually increasing periods of recuperation therefrom.

Internal development and prosperity are a natural temporary result of the present system, but the optimist fails to take such a cheerful view of the subject when viewing the question from the standpoint of paying for foreign service, from which no profit is returned to the United States. It would be wholly illogical to argue that the system could be entirely eliminated from the march

of progress. It is entirely within the bounds of common sense to believe that the system will obtain under the most flattering conditions of prosperity that the United States shall acquire, but when voluntarily offered as a premium the system is weak, and flagrantly so in view of the rapid advance and prosperous condition of America. The system has merit up to a certain limit, the yield point of which is established when the bulk of the burden is placed upon the cornerstone of American prosperity. Equitably distributed among the different members of the structure, the completed structure fills its requirements and carries a greater responsibility than a single or number of weak points would permit.

Trade conditions in the United States have exceeded the greatest hopes of the Government, but not in the same proportion as the advance made in its material industries. Trade extension is within the reach of this country, as manifested in its marked progress from Yankee ingenuity to industrial supremacy, the burden of the latter era, however, has been sustained by trade extension, and almost reached the yield point. It is not to be inferred that borrowed foreign capital is totally responsible for these conditions. The argument applies to every form of introducing foreign capital, from that of borrowed money to the employment of foreign ships to transport American goods, including every form of negotiation that does not combine the elements of a purely legitimate business transaction.

CIVIL ORGANIZATIONS OF SAN FRANCISCO AND THEIR RELATION TO THE PROGRESS OF THE STATE

Very few people appreciate the influence of well organized and conducted civic organizations in the prosperity of American cities, or the class of citizens of which the membership is composed. San Francisco and California in general are indebted to the standard of excellence attained by the civic organizations of San Francisco, and that indebtedness can be measured only by comparison with California's fame as known to the civilized world.

Civic organizations comprehend something more complex than selfish interests, something more productive of good than partisan power; they involve the perfection of relations between man and man, increase in prosperity, the progress of individuals, and expansion of the general well-being of the community. To such organizations are drawn men with these principles, men prepared to attack every form of civic evil, on the broad field of humanity, and who are prepared to capitulate only on terms of the greatest amount of good to the greatest number of people.

The duties of membership in civic organizations further involve much sacrifice of time, unaccompanied, as is the common belief, by high salaried officials, or other emoluments; on the other hand, conditions are reversed when the vital questions dealt with are considered together, will the labor necessary for their equitable adjustment. In the event of error or the proper application of facts in the question involved, and, unfortunately, too often viewed by the outsider from a misconception of the facts, this latter form of occupation offers very little inducement to the busy merchant. The broad scope of usefulness, perpetuation of and resultant benefits from civic organizations in San Francisco, which remain a tribute to their efficiency in the past, and a stepping-stone to greater achievements.

Invariably the officials of and members charged with the active workings of civic organizations in San Francisco are men who have yet to acquire a competency in life; who are inseparably identified with the progress of the city and state, and men upon whom rests the successful

management of many of the state's most important industries, and commercial strength. In the absence of arbitrary material to engage the enthusiasm of their members these men are keenly alive to the importance of ascertaining and presenting to their colleagues minute details pertaining to the welfare of the state, and the country as a whole.

National, state and local questions receive a just share of attention, regulating to a great extent policies that would otherwise be detrimental to the common welfare, and hardly a day passes that the people are not called upon to witness the bountiful effects of this influence. In the previous issue of *Pacific Merchant Marine* we took pleasure in publishing the letter of James McNab, president of the Chamber of Commerce of San Francisco, written to the Navy Department at Washington, regarding the shipment of coal for the navy from the Atlantic to the Pacific in foreign vessels.

We now take pleasure in recording the action taken by the Merchants' Exchange of San Francisco, James Rolph Jr., president, indirectly bearing on that subject, but directly upon the merchant marine as a whole.

At a meeting held at the exchange on Friday, the 15th inst., attended by San Francisco's foremost commercial representatives, Congressman W. E. Humphrey of Washington, chairman of the House Committee on Merchant Marine, made a strong appeal for united action of all civic bodies and advocated education on liberal lines of the merchant marine question. A subject upon which Congressman Humphrey is an eminent authority, and which has been the means of placing him conspicuously before the American people, and particularly those of the Pacific Coast, as one of the most earnest and efficient statesmen in Congress, and well qualified to carry the honors and responsibilities he has received both by the people of Washington and Congress of the United States.

Congressman Humphrey was in the front rank during the last Congress with those who favored the adoption of the Ocean Mail Act, but which was, unfortunately, defeated in the House by a vote of 172 to 175. His efforts on this occasion were marked by intense earnestness and statesmanship. He will leave in a few days on a campaign of education in the Southern States, and to gain converts to rehabilitation of the United States merchant marine. The contemplated trip foretells the success of the enterprise and favorable consideration of the merchant marine subject during the coming session of Congress.

In a bill before Congress Congressman Humphrey advocated modification of the present mail act by granting to second-class ships the price that is now paid to first-class ships for carrying the mail on 4,000-mile voyages, and also to permit owners to buy their ships in foreign markets.

The meeting was also addressed by Representatives Everis E. Hayes of San Jose and Julius Kahn of San Francisco, both of whom have taken a prominent part in behalf of a merchant marine during each of their several terms in Congress.

To this and similar efforts by the Chamber of Commerce and the Merchants' Exchange of San Francisco are the people of the State of California indebted for the best that is good in the prosperity of the state.

During the month of September the merchandise shipments from San Francisco to the Hawaiian Islands were valued at \$1,160,731, compared with \$957,597 for September, 1908.

PRESIDENT WILLIAM F. TAFT'S TOUR OF THE PACIFIC COAST

Continued from Page 6

of a merchant marine roused the interest and enthusiasm of every individual in the audience. Every other question assumed second place. The President paid like respect to the opinions of others who spoke on this subject. Governor Gillett's strong appeal in favor of a merchant marine marked a close study and fervent advocate of this question. Gavin McNab's speech, though brief, is noteworthy:

"The President prepared in advance his own welcome by his message promising to take from the nation its reproach and restore its glory on the seas.

"San Francisco for a generation has been like Tantalus of old, chained before the waters. The country has built a great navy to guard a commerce that does not exist, expending vast sums to defend sea trade in time of war—nothing to help it in time of peace. A fraction of the cost of creating and maintaining a navy to defend commerce would create a commerce to defend. We are spending half a billion dollars creating a canal to unite the Atlantic and Pacific, chiefly for the benefit of international shipping. Whose ships? Not ours. We have none.

"Shakespeare was wrong when he said, 'What's in a name?' Everything is in a name. Law for the benefit of land industry is protection, that in aid of sea enterprise is subsidy.

"In consequence American ships, built at protection prices, sail on free trade terms, meeting ships constructed at free trade cost operated under subsidy. As a result the American flag is only seen on the ocean when the nation hires it to carry a gun.

"Mr. President, we believe that more than half of the future greatness of America lies in the West. It is our ambition, as the largest, and at once, the oldest and newest city, to be the trustee of the nation in Pacific waters. We are ready to bear the responsibility."

Under the administration of President Roosevelt the United States progressed along lines, and under circumstances, different to a marked degree, from all others. At its beginning and for seven and one-half years, nothing of importance developed. Compared again to all previous administrations, that required an extremely diplomatic course. If diplomacy entered into the question at all, it was rather removed to the plane of commercial diplomacy, and had to do more with internal affairs than international question. Yet it is conceded to have been one of the most important, effective and far-reaching administrations in American history.

The visit of President Taft to the Pacific Coast has been of material benefit to the country as a whole. Heretofore we knew little of him. During his visit we became better acquainted with him. On the day of his departure from the State, we looked upon him as our special envoy leaving for Washington to present facts to Congress concerning the Pacific Coast that would result in corresponding benefit to the United States, as accrued from his mission as pacificator to the Philippines in 1901, to Cuba in 1906, and to Cuba, Panama and Porto Rico in 1907; and that his intense earnestness of manner would impress Congress with the same effectiveness as resulted from his visit to Rome in 1902, to confer with Pope Leo XIII, concerning the lands owned by the various religious orders in the Philippines, and which was subsequently settled to the satisfaction of all concerned; and also the results of his diplomatic efforts at Tokio, Japan, in suppressing

the irresponsible war talk of the sensational press of both Japan and America.

With due respect to the ambitious requests of Governor Gillett and Mayor Taylor, we are of the opinion that the President considered the stationing of a battleship fleet on the Pacific, and a water supply for San Francisco, were matters that could be satisfactorily adjusted among our own citizens. At least, the President emphasized that sentiment while speaking of the rebuilding of San Francisco. He said:

"You have added to the character of San Francisco in the last three years, something that makes you exceptional in the history of the world. I know, because there was a time when I had some responsibility connected with it. I know how that first year after the disaster that visited you seemed an insurmountable obstacle to your restoring the city to the imperial way that it had upon this Coast. And we in the East were considering whether your power was to pass northward or southward, and were regretting that the Golden Gate and your magnificent harbor were not to be in accord with the city upon its shores. And yet you have overcome all this."

The administration of President Taft is yet in its infancy. The people of the United States have a reasonable idea of the contents of the forthcoming message to Congress, convening December 6. No section of the country is more deeply interested in the success of President Taft, none more anxious to crown his political career with glory, than the peoples of the Pacific Coast. We have every reason to believe that the President enjoyed his visit. We assure him that the sentiment is mutual. If he is wanting for administration material, we on the Pacific Coast feel privileged to say advisedly: An American merchant marine first, last and all the time.

It would be reasonable to believe that amidst the numerous events that occur during the reception of the Chief Executive of the nation on the occasion of his first visit in that capacity to the different sections of the country, that minor circumstances, and frequently much that is important, will be overlooked. It is significant to note in the present instance that while yet in the midst of his present journey, and there yet remains many important sections to be visited, that the President's thoughts are still engaged in the affairs of the Pacific Coast, and that he proposes and will drink the following toast to San Francisco on the opening day of the Portola celebration:

"Since Portola looked through the Golden Gate on the descending sun, San Francisco has twice become the imperial city of the Pacific; first, by the energy of a pioneer race and steady growth into the Western metropolis; second, after complete destruction by the greedy flames and in the face of insurmountable obstacles by a regeneration so rapid and complete as to be the wonder of the world. May her future growth be as remarkable as her past, and may her civic righteousness and the individual happiness of her citizens keep pace with it."

The valuable time of President Taft has been consumed by the Pacific Coast States for ten days. To whom shall the accrued profits be credited?

According to the New South Wales Commissioner in the East, Canada has appointed a commercial representative to stimulate its trade in China and Japan. The New South Wales Commissioner says that, although Canada is in a position to supply many products similar to those produced in New South Wales, the latter, if specially alert, have nothing to fear from Canadian competition.

On the Ground Floor

A SAFE TRADE PLAN ESTABLISHED IN BUENOS AYRES

Attention is invited to the appended copy of a circular letter issued by a committee of United States citizens at Buenos Ayres:

"We beg to advise you that we have formed a committee, to be later enlarged, to carry into effect a plan suggested to us by the Hon. Charles H. Sterrill, our minister to Argentina, for opening the field of foreign trade to such American manufacturers as do not possess sufficient capital either for extension of credits or sending out salesmen. Certain of our compatriots here possess each a few customers of such satisfactory commercial standing as to make the aforesaid compatriots willing to pay cash against bills of lading for goods sent out to such customers. Each of such compatriots furnishes to our committee a short list of these select customers, stating the cash limit he will pay for each customer, and what line of goods each desires. The manufacturer quotes his price to us, and our member accepts or not, directly to the manufacturer. Replies should be addressed to Secretary Chamber of Commerce Committee, North American Society, 531 Cayo, Buenos Ayres, Argentina."

The Venezuelan Minister of the Treasury and Public Credit has sent a circular to all customs collectors requiring compliance with article No. 133 of the national constitution, which prohibits the collection of any export duty on products of Venezuela, including cattle. The export duty on cattle was 4 bolivars (bolivar equals \$0.193) per head. The export duty on agricultural products and skins was abolished by the decree of May 19.

According to the Colombian decree of July 10 the duty on wines entering that country will ultimately be reduced to the rates given below. The reduction is to commence six months after the promulgation of the present decree, and shall be effected, in equal installments, within a period of ten months, at the expiration of which the present decree is to come into full force. The rates are to be as follows: Ordinary red wine, in casks, pipes and demijohns, under class 3, 2 cents per kilo (2.2 pounds); red wine in bottles, under class 4, 3 cents per kilo; red or light wines, sweet or dry, such as Bordeaux, Madeira, Sherry, Muscatel, Malaga, port, vermouth, etc., in pipes, casks or demijohns, under class 5, 5 cents per kilo.

The wines mentioned in the preceding paragraph, bottled and sparkling wines, with the exception of champagne, under class 7, 15 cents per kilo. Medicinal wines, under class 6, 10 cents per kilo. To the above rate should be added a surtax of 70 per cent of the duty.

Tanning and the manufacture of leather goods are on a very small scale in India, owing mainly, it is thought, to the want of a sufficient number of experts. An excellent opening exists for a large number of young men trained in Europe and America to start tanneries. It is needless to say that hides constitute one of the four principal commodities, which are capable of profitable manufacture in the country, and, having regard to the vast quantities that are annually exported from India for manufacture in foreign countries, it will be readily admitted that there is an almost unlimited field for the employment

of labor and capital in these industries. American experts should make note of this opportunity.

At present all trunks and valises are shipped into Western Nicaragua from Germany, France and England. The trunks are invariably of the very cheapest grades, of such material as tin and wood, the latter being in some instances covered with canvas of a flimsy quality. They are, moreover, usually in a more or less damaged condition. The valises are vastly inferior in quality and workmanship to the average American product, and yet they command exorbitant prices.

As an example, a 22-inch German traveling bag of ordinary grained leather and lined throughout with drill costs equivalent to \$35 in gold. This bag, as demonstrated by the merchant, cost at wholesale, laid down, freight and duties included, the equivalent of \$22. The somewhat excessive profit, it was explained, is considered necessary in order to offset the risks incurred by the local tradesmen through the instability of monetary exchange. Consul Jose de Olivares of Managua has had printed and will forward to applicants a "Commercial Index of Western Nicaragua," containing lists of importers and dealers in dry-goods, most of whom handle trunks and valises.

Motor-boats are in great demand in South China. Not only is this style of craft in great demand because of its light draft, but the Chinese have not yet succeeded in duplicating it. The question of electricity and petrol consumption are too complex. American engines at present have almost a monopoly of the market. Both English and German firms act as agents for American engines, and seem to prefer them even in their own motor-boats. The simplest style of engine consistent with efficiency is the most popular with the Chinese, as the native engineers do not master the more complex. Added to simplicity should be cheapness, an appeal which Chinese can rarely resist. Eventually, owing to the necessity of shallow draft boats to navigate far up to the sources of the shallow rivers and in the delta of this region, it is predicted that the motor engine will come into practical and extensive use. The navigation of streams is a very live question with Chinese, who have to depend on them almost entirely for transportation.

The machinery for a new shoe factory in Guayaquil is now being installed. Work on the new electric tramway is being pushed to completion. A contract for the installation of an adequate sewerage system for Guayaquil has recently been let (to a French Syndicate) and another for a sewerage and waterworks system, stone wharf, wharf railroad, and harbor improvements at Balua de Caraquez (also to a French company) and other improvements are in contemplation. All of these undertakings will necessitate the importation of more or less new machinery. The total value of machines and machinery in general imported into Ecuador in 1908 was \$250,634 United States currency.

With a good crop this year and the inauguration of new enterprises, business in general in this vicinity should continue to be reasonably good, and plantation owners and others will continue to buy more or less machinery to replace old and for new installations.

FOREIGN EFFORTS TO CONTROL THE WORLD'S COMMERCE

Referring to the newly opened American service (a Japanese line), the president of the Osaka Shosen Kaisha says that the steamers on that line obtained full cargo on both voyages. As a result of the increase in railway rates in the United States it appeared that cargo was being sent via Suez, but the Pacific route being shorter, such a practice was unlikely to continue.

Construction work through the State of Sinaloa, Mexico, of the Southern Pacific Railroad has been actively pushed, and it now reaches Rosa Marada, 115 miles south of Mazatlan. Barring unforeseen accidents, the entire line will be completed to Guadalajara by 1912. Rich in minerals and possessing agricultural lands as good as any state in Mexico, Sinaloa offers bright opportunities for the settler seeking profitable and legitimate investments. However, tales of the fabulous wealth of this state have been carried to the United States, and this country is now overrun by penniless and destitute Americans lured here by such stories.

There are in the mountain districts mines of immense value, but they are far inland, and much capital is required to put them on a paying basis. The railroad will tap this rich mining country, and greatly facilitate the marketing of the ore. So fertile is the land also tapped by the railroad that all varieties of vegetables and fruits may be grown. But when seeking investment in agricultural and mining lands the investor should first secure a thorough knowledge of the language, laws and customs of the country.

The arrivals of steamers at Swatow, China, 200 miles north of Hongkong, was somewhat less than last year, the entries being 2,821, with a tonnage of 793,960. On account of decreased exports, more than one steamer bringing a good import cargo left in ballast. The steamers engaged in the coast-carrying trade brought more than 100,000 tons of bean cake from northern points. Enormous quantities of this product are imported annually and used for fertilizing purposes. The steamers from Chinese ports also brought 104,000 tons of rice. Swatow's principal article of export is sugar, practically all of which was taken at southern Chinese ports; 400,000 gallons of kerosene oil was imported during the first six months of 1909.

The Munson Steamship Company of Boston will put on a steamship that will sail from the former New Brunswick port direct for Habana, Cuba, and monthly thereafter, commencing October 1.

The directors of the new hotel for Manila are making their financial plans to purchase a site, erect and equip a hotel, and provide a working capital which will require an investment of \$450,000. The Insular Government has agreed to purchase at par \$300,000 of the bonds of the company, redeemable within 22 years and bearing interest at 4 per cent.

The steamship service between New York and Iquitos has been resumed, the first steamer, Napo, having left the former Peruvian city at the headquarters of the Amazon the first week in August, and was to be followed eight weeks later by the steamship Meayali. Should these two steamers be found insufficient for the American trade with this port the line will be supplemented by the steamship Yavary and a constant service maintained. A great revival of trade is looked forward to at Iquitos during the season now opening, a large rubber crop being anticipated.

The Government of Venezuela has entered into a 15-year contract with a citizen of Barcelona for the estab-

lishment of a line of steamships to run between the ports of Cairo, Colorado, Aquas Clara, Rio Grande, Guaraquin and Cristobal Colon, all on or near the east coast of the republic, bordering on the Gulf of Paria. Ample provisions are made for first-class cabin passengers, and freight capacity to meet the requirements of the trade. A steamer must call fortnightly at each of the ports mentioned.

In line with a decision of the Brazilian Government, the Lloyd Brasileiro, the company which has maintained the major portion of the coastwise and interior (river) shipping of Brazil under government subsidies, and which has maintained a service of small and slow ships between Rio de Janeiro and New York, which it proposes to supplant with larger modern vessels, is to be reorganized as a corporation in which the Government of Brazil is to have two-thirds of the stock and an absolute control of the affairs of the company. This two-thirds of the stock of the new corporation represents in a general way the sum the company owes the government directly or as a result of guarantees by the government of company loans in England. The decision of the government has come as a result of the financial condition of the company, and is likely to give new life to the enterprise and confirm the establishment of a service between Rio de Janeiro and New York of modern ships, which it to be commenced at once.

A Canadian newspaper account of the meeting at Ottawa of the Royal Commission to inquire into the improvement of trade relations between Canada and the West Indies, contains the following on the subject of ship subsidies:

There was a 12-day service between Halifax and the West Indian Islands, four steamships being commissioned, for which a subsidy of \$65,700 per annum was paid by the British Government and the Canadian Government each. The service in his opinion had not met fully the requirements of Canada either from a passenger or a freight standpoint.

If a fast through service to South America or one of the West Indian Islands was instituted, calling at one or two points en route, and there was a subsidiary service to distribute and collect cargo, it would be very much better than the present system.

The service between Halifax, Turk's Island and Jamaica is monthly, and the subsidy paid by the Dominion Government is \$13,800 per annum.

According to Consul Joseph G. Stephens of Plymouth, a new service of sailings from Falmouth has recently been inaugurated. The steamers of John Glynn & Son, Liverpool, will call at Falmouth every ten days, taking cargo for Genoa, Leghorn, Naples, Catania, Messina and Palermo. These liners will also carry passengers. It is intended to build up a direct trade in pilehards, china clay, arsenic, tui and general merchandise.

Vice-Consul-General John W. Dye reports that a direct line of passenger steamers between Italy and Canada, with terminals at Genoa and Montreal, has been announced. The promoters declare that this line is being established in response to a demand for another outlet for Italian immigrants. The new line will, it is understood, be operated by one of the foremost Italian transportation companies.

The net exports of wool from New South Wales for the twelve months ending June 30, 1909, were 973,136 bales, an increase of 116,729 over the previous year. The shipments of the 1907-8 season, however, were 100,249 bales less than for 1906-7.

With the recent establishment of direct steamship connection between New York and Constantinople by the Hellenique Trans-Atlantic Steam Navigation Company, the greatest barrier against the development of American trade in Turkey has been removed. Correspondence in English is solicited by the Greek Chamber of Commerce, Galata, Constantinople.

Business with Holland, in American lumber, is regularly increasing. American lumber will be taken regularly as long as there is any lumber available for export in the United States, and this for the reason that the quality shipped from other countries differ from the American in several respects.

The cultivation and manufacture of cotton are one of the most important industries of China. It is generally conceded that the area devoted to the cultivation of cotton is only exceeded by that devoted to silk and tea.

South Africa imported more of the articles which the United States has heretofore supplied in considerable quantities during the six months ending June 30, 1909, and both Great Britain and Germany have benefited by South Africa's prosperity. The United States has failed to maintain her percental share of the total trade. Mine and power machinery are in great demand.

For the fiscal year 1908 the United States imported 13,398 tons of plumbago, worth \$1,206,016, nearly all from the British East Indies. Canada is rapidly developing this industry.

The customs returns for the Siamese year ended March 31, 1909, show imports of flour valued at \$99,964. Although there are no statistics to prove the fact, it seems probable that much, if not all, the flour credited to Hongkong came from the United States, as Hongkong is a port of trans-shipment for Bangkok. The case applies to imports in general. Judging from the increased demand for other foreign foodstuffs, it seems likely that the demand for flour will also be largely augmented within the next few years.

American travelers in China write of its immense resources and its great population, deducing therefrom that there are untold possibilities for the disposal by their countrymen of products and of machinery of every description. The keen rivalry of all countries for trade extension indicates that Americans have been derelict in fostering the trade of China.

The increased activity in railroad construction offers a splendid market for materials of equipment and supplies generally. Steam launches, motor-boats and gasoline engines of American manufacture are popular and in great demand. Steam dredges, mining and agricultural machinery, irrigation pumps, windmills, plows, etc., which are in use at present are extremely crude.

The Chilean Government has under contract 698 miles of railroads at an estimated cost of \$24,207,606 United States gold, of which 522 miles are being built under contract. The tunnel through the "backbone" of the Andes on the Transandean Railway, connecting Valparaiso and Buenos Ayres, is to be completed about June 1, 1910, after which date it is expected regular trains will be running. The tunnel is 10,451 feet long.

The tomato yield of Eastern Ontario is greatly curtailed. The canners have packed only a limited portion of their usual output. One-third of the canning factories of the province are in the Kingston district. It appears there will be an increased market in Ontario for American canned peas and tomatoes this coming winter.

PACIFIC COAST PORT NOTES

PORT OF SAN FRANCISCO

Imports at San Francisco for Month of August.—Imports for the month of August at San Francisco, exclusive of the Hawaiian Islands, amounted to \$4,068,387. For the corresponding month of last year the imports amounted to \$4,793,465. Merchandise which was admitted free of duty amounted to \$3,252,823, 56 per cent of the total imports, or \$2,309,989 worth, was duty-free raw silk.

Japanese contract Steamers' mail charge lowered.—The cost of conveying United States mail to the Orient by Japanese contract steamers will be reduced from five to four francs per kilogram on letters and postcards. This is equal to a reduction from about 43 to 35 cents a pound. The department thus will save \$7,282, if the present volume continues. The new rate applies to the conveyance of mails from Seattle and San Francisco to Yokohama and Hongkong by the Japanese contract steamers on the Hongkong-Seattle line of the Nippon Yusen Kaisha and on the Hongkong-San Francisco line of the Toyo Kisen Kaisha.

State Legally Unable to Bear Part Expense in Building Emergency Hospital.—Through a report of the attorney of the State Board of Harbor Commissioners it is made clear that the board will be legally unable to participate in the erection of an emergency hospital on the waterfront. It was planned that all expenses of constructing such a building should be met jointly by the City and County of San Francisco and the State Board of Harbor Commissioners.

Japanese Steamship Company Shows Big Deficit in Earnings.—The result of the settlement of the accounts for the first half of the present fiscal year of the Tokio Kisen Kaisha shows a total income of Y2,410,000 against expenditures totaling Y2,600,000. The deficit of Y190,000 represents the loss incurred by the company during the preceding term, which brings the aggregate loss together with that of the previous year up to a total of Y1,010,000.

The causes of this loss during the previous term are largely traceable to the general depression prevailing as well as to the fact that the boycotting of Japanese goods in south China had not abated to any degree.

That the loss is not much larger than it is, is due to the increase of the amount of subsidy received by the company as well as the curtailment of expenses rendered possible by the complete readjustment of the company's management.

The directors hope to be able to make good these losses during the coming fiscal year. It is their intention to lay these accounts before a meeting of the most influential shareholders prior to submitting the same to the general meeting of shareholders, which will be held at Nihonbashi Club on the 28th inst. At this time the board of directors will publicly express their views on the matter and the line of policy which they deem it expedient to adopt in the future.

The company's debentures, the term of the redemption of which ends in October, will be redeemed with the financial assistance of the Dai Ichi Ginko and the Yokohama Specie Bank.

Pacific Mail Liner Korea to be Equipped With Wireless.—The steamer Korea will make her next trip to the Orient with a new strange power added to her faculties, that of making herself heard. She will be equipped with a five kilowatt instrument. This is the most powerful equipage installed on any vessel in the Pacific, and the Korea is expected to make some new long distance records.

Pacific Coast Delegation in Congress Urged to Support Differential Law for the Coast—Realizing the importance of the reenactment of the law covering the differential of 4 per cent for the construction of naval vessels and government boats on the Pacific Coast, the different civic organizations of the Coast have petitioned their respective delegates to support the measure. This differential was allowed in the case of the building of the battleship Nebraska.

The higher rate of wages and the greater cost for the materials entering into the construction of vessels, make it necessary for a differential to be allowed, if any government ships are to be constructed on the Pacific Coast. Such practice not only contributes to the prosperity of shipyards in the West, and to their development, as was notably demonstrated by the battleship Nebraska, built by the Moran Company in Seattle, but makes possible a distribution of the work of the government which cannot otherwise exist. The additional cost would not, in effect, inflict extra burden on the government, because of the fact that many of the vessels constructed are for service on the Pacific, and the cost of bringing them from the Atlantic shipyards to these waters must, in reality, be added to the cost of construction on the Atlantic.

California Fruit Growers Protected by New Customs Regulation—Flagrant abuses in fruit importation entailing thousands of dollars of loss to the government, occurring especially on the docks at New York, are aimed at in regulations proclaimed by Acting Secretary of the Treasury Reynolds and directed to collectors of customs "and all others concerned."

The regulations prohibit importers from delaying for a week or ten days the filing of claims for allowance for decay, destruction or injury of the fruit imported but not taken from the docks, making it impossible for the authorities to determine what to allow for the deterioration of the imports. California fruit raisers took up this question with Congress at the last session, contending that the delays operated to the undue advantage of Italian interests, particularly as to oranges and lemons.

The government is entitled to the duty on the arrival of the fruit, and 48 hours is fixed by the department under the new regulation as to the time within which, after the arrival of the vessel, importers may file their claims for allowance for shortage or non-importation.

Immediately upon notice of these claims the appraisers, under direction of the collectors, will detail one or more examiners to determine promptly the percentage of decay. The examiners will be called upon to set aside representative packages, consisting of at least 5 per cent of each lot or mark, and to open and examine them. Within ten days after the landing of fruit the report of the appraiser must be made to the collector, fixing the percentage of rotten and worthless fruit found. On this percentage the allowance will be made in the liquidation of the entry.

Where imported fruit or other perishable goods have been condemned at the port of original entry within ten days after landing, by the health officers or authorities, no allowance will be made until the importers or their agents within 24 hours file details notice with the collector.

No allowance will be made for damage to any imported merchandise other than the allowance upon perishable goods on the ground of non-importation. Importers, however, are permitted under the new regulations to abandon to the United States within ten days after entry all or any part of any goods included in any

invoice, and be relieved from payment of duty on the abandoned portion, provided it amounts to at least ten per cent of the total value or quantity of the invoice.

Commerce of Oakland for September—The total of vessels that docked in Oakland during the month of September, as reported by the Oakland Chamber of Commerce, were 307, with a total tonnage of 117,035. Segregated, they are as follows: Steamers 268, schooners 24, scows 4, lighters 5, barks, 2, barges 1 and ships 1.

The foregoing shows an increase of 109 vessels and 26,380 in tonnage over the corresponding month last year.

General merchandise, including onions, empty sacks, empty barrels and a few can goods, were 3,730 tons.

Last of the Codfishing Fleet Arrives in San Francisco Bay—The American barkentine Fremont, the only American vessel to cruise the Okhotsk Sea this year, arrived in port during October. She brought a nominal catch, about 80,000 codfish, to the Union Fish Company. The captain reports that seventy-nine Japanese schooners were after codfish in the Okhotsk Sea.

San Francisco Quarries Company's Barge No. 3 Total Loss—Barge No. 3, belonging to the San Francisco Quarries Company, which went ashore near the Presidio recently, cannot be recovered. The loss is estimated at \$5,500.

Sacramento Merchants to Improve River—The Sacramento Jobbers' Association has passed a resolution approving the proposition of widening the Sacramento River at its mouth and indorsing the plan of the Chamber of Commerce to raise \$75,000 as Sacramento's share of the cost for the work.

The resolution follows:

"Resolved, That we are heartily in favor of the proposition as outlined and recommended, and we recommend that the city of Sacramento raise \$75,000 either by direct taxation or by bond issue, and that the matter of raising the amount be submitted to the vote of the people at the next general election."

San Rafael to Establish Marine Exchange—A movement is on foot to establish a marine exchange for the shipping which comes via the new canal, owing to the increasing number of freight steamers which are plying between this port and San Francisco.

American-Hawaiian Steamship Company Advances Rates—The American-Hawaiian Steamship Company will, after the sailing of the steamer Virginia on October 29th, advance rates on several commodities, chief among which will be dried fruits, canned fruits and vegetables. At the present time space is at a premium on this company's eastbound freighters, and this condition probably resulted in the advance.

Commencing the first of next year the American-Hawaiian Company will inaugurate a twelve-day service out of Portland in place of a fourteen-day schedule, as at the present time.

Immigration Station at Angel Island to Be Opened—By order of President Taft the immigration station at Angel Island will be opened immediately.

For want of an appropriation to furnish it with suitable furniture, the opening of the station has been delayed from time to time, and it would doubtless have been delayed for an indefinite period if the President had not interceded.

Passengers and Crew of the Norwegian Steamer Ocean Queen Arrive on Mariposa—The captain, three passengers and the crew of the Norwegian steamer Ocean Queen, which was wrecked on a reef near the shore of Makatea

Island, Tahiti, on September 16th, reached San Francisco on the Oceanic steamer Mariposa, when H. Lund, the consul of Norway, will hold an investigation into the cause of the wreck.

The Ocean Queen was a vessel of 1,974 tons' capacity, had limited quarters for passengers, and was on her maiden trip when the accident occurred. The steamer was built in England to carry the guano product of the Pacific Phosphate Company, and she was chartered by that company for a number of trips.

Tacoma

Transcontinental Railroad Reduces Freight Rate to the Orient—The Chicago, Milwaukee and Puget Sound Railroad, which connects with the Osaka Shosen Kaisha for the Orient, has cut rates on a number of commodities for the Orient.

The other transcontinental railroads, which operate under an association agreement, are endeavoring to force the Chicago, Milwaukee and Puget Sound to uphold the regular schedule.

Matting to inland and overland points has been cut from \$1 to 70 cents a ton, tea from \$1 to 85 cents, hemp from 47½ cents to 42½ cents, and other commodities in like proportions.

Shipper Secures Damages from Ship Charterers—In the case in admiralty of L. Bony of Tacoma against W. R. Grace & Co. for damages amounting to \$2,610.33, the Federal Court submitted a decision adverse to the defendant. The suit was instituted because of damage sustained on a cargo of liquor and cement shipped on the French bark Ville de Mulhouse. In the decision it was stated that the evidence substantiated the fact that the Ville de Mulhouse was unseaworthy, due to the decks not being properly caulked, thereby allowing quantities of water to leak through the deck onto the cargo.

Direct Service May Be Established Between Tacoma and Vancouver—The Chamber of Commerce of Tacoma is making an effort to induce some steamship company to establish passenger steamship connections between Tacoma and Vancouver.

The purchase of the old steamer Victorian, which was fitted up for a passenger steamer at heavy expense this Spring, was considered by the chamber, but this was discouraged by practical steamship men whose advice was asked. The Victorian, formerly one of the greyhounds of the Sound, after being handsomely equipped this Spring, was expected to be used in the summer excursion trade; but before she was placed in operation she was labeled for between \$7,000 and \$8,000 by the Hall Brothers' shipyard at Eagle Harbor, where she was refitted. Since that time nothing further has been done regarding her purchase and she still lies disengaged.

It is understood that the Chamber of Commerce will endeavor to induce the Canadian Pacific Company to operate a passenger steamer between Tacoma and Vancouver direct, and if it fails in this will make a proposition to some independent line. The present service from this port to Vancouver and Victoria requires passengers to be transferred at Seattle.

Seattle

The Interstate Commerce Commission in Session at Seattle—The first case heard by the Interstate Commerce Commission was the protest of the Humboldt Steamship Company. The company complains that April 1, 1909, the corporation was notified that the old through tariff, including absorption of wharfage, charges at Skagway by the White Pass & Yukon Railway, and applying to traffic between Puget Sound ports and Dawson and Fair-

banks, would be cancelled. Mr. Kalisch, as managing owner, appealed to the Interstate Commerce Commission for relief, on the theory that the interstate commerce law applies inasmuch as the White Pass & Yukon Railroad is an American corporation operating in American territory.

"Every since the opening of the White Pass line," Mr. Kalisch told the commission, "we were given through rates to the interior of the Yukon Territory and to points in Alaska, including Fairbanks. During all these years, also, the White Pass Route absorbed the wharfage charge at Skagway. April 1 last I was notified by the White Pass & Yukon that the agreement was ended and that shippers on my steamship, the Humboldt, would be charged \$2 a ton wharfage, while the shippers on the favored steamships of the Pacific Coast Steamship Company and the Alaska Steamship Company paid only \$1 wharfage."

Barge Charger Beached to Save Her from Sinking—The barge Charger, which is owned by the Coastwise Steamship and Barge Company of Seattle, was beached in Karta Bay, about 60 miles north of Ketchikan, Alaska. A cargo of 2,300 tons of ore was too much for her timbers and at the time of beaching, her holds were awash. The barge will probably go to pieces where she lies.

The Charger was of 1,134 tons and was at one time a fast square rigger. She has been used as a barge for several years.

Navigation Season to Tanana Closes—Navigation on the Tanana River was closed rather unexpectedly on October 10th by the complete freezing of the stream. The sudden freeze has caught a number of steamers in the river and they will be held until the breaking up in the spring of next year. Two steamers with a crowd of prospectors for the new Iditarod district and a thousand tons of freight were frozen in within a short distance of Fairbanks. The provisions, which comprised the bulk of the freight, will not be available until the steamers as the Cook inlet district is entirely frozen over.

Merchants' Exchange Changes Policy—At a special meeting of the directors of the Merchants' Exchange it was decided to throw the premises of the exchange open to all shipping men in the city. Heretofore the place has only been open to members and subscribers of the exchange, but it was decided to adopt a new policy with the idea of making the institution a desirable rendezvous for shipping men and their friends in Seattle. These will be given all the information the exchange has and may have the advantages of the reading-room in connection as well as the telegraphic information regarding the movement of vessels. Owing to the big increase in shipping since the exchange was started the practice of telephoning all information to each individual subscriber will be discontinued, the information only being given in response to specific inquiries.

Matson Navigation Company to Establish Seattle Service—As soon as the Matson Navigation Company's new steamer, which was recently launched at Newport News, is installed on her run between San Francisco and Honolulu the company plans to place the Lurline and Hilonian on a triangular run between San Francisco, Seattle and Honolulu.

Vancouver, B. C.

Canadian Government Gives Interesting Marine Decision—The marine department of the Canadian at Ottawa has upheld the protest of the British sailing ship Celtic Monarch against having to sign on a complete crew to tow from Vancouver to Seattle. This decision settles a point which heretofore was a matter of custom taken from Great Britain's law regarding this point,

which states that where vessels are to be towed long distances it is only necessary to sign sufficient hands to steer and keep lookout.

Canadian Sealer to Ask Damage from the United States—The Canadian schooner *Jessie*, the first of the Vancouver sailing fleet to return, reached port with eight sea otter and 542 sealskins, of which 191 were taken in Bering Sea. The schooner's owner will probably make a claim for damages against the American Government following the report of Capt. Munro, who says that the officers of the United States revenue cutter *Bear* boarded the schooner on June 23 and sealed her firearms. The officers of the *Bear* had already sealed the arms on the schooners *Peshawba* and *Thomas F. Payne*. Capt. Munro says that the action was illegal.

The sealing up of the *Jessie's* arms followed a thorough search for skins. The catch of the Victoria sealers up to September was 2,500 sealskins and 18 otter skins. The schooner *Toyo Maru*, in command of Capt. Voa, who some years ago circumnavigated the globe in a canoe, had the highest catch of the 38 Japanese schooners in Bering Sea, having 1,065 skins. The others averaged from 300 to 400 seal skins.

Steamer Humboldt Fined by Canadian Government—The American steamer *Humboldt* was assessed \$400 by the Canadian customs authorities for a breach of the maritime law of that country. The *Humboldt* recently towed the steamer *Cottage City* to safety, when the latter vessel lost her rudder and was in immediate danger. Being in Canadian waters at the time, the towing should have been done by British vessels.

Eureka

The Commerce of Eureka for September—For another month the shipping for Humboldt Bay has held to the average amount during the other months thus far during the year, a total of 186 vessels having crossed the bar during the month of September. The total is about the same as for the month of August, showing if anything, a slight increase as during September there were not as many power boats and cargoless craft crossing Humboldt bar as during the months of the early summer.

Of the 186 vessels crossing, 98 were incoming and 88 outgoing. Of the incoming vessels 47 carried mail.

The offshore shipments for the month under consideration have not been as heavy as during other months, July being one of the biggest months for offshore shipments in the history of this port. The earlier part of September several large offshore cargoes were shipped, but during the last of the month, the activity in the offshore trade was light.

Barker-McLean Launch Company Go Out of Business

The Barker-McLean Launch Company has disposed of the launches owned by it and will do business in Eureka no longer. The *Elgin* has been sold, the *Petrel* has been chartered and the *Clyde* will be used as a pleasure boat on the bay.

The withdrawal of the Barker-McLean Company from the general launch business on Humboldt Bay leaves but two firms on the field.

Portland

Japanese Sailors on British Bark Complain of Bad Treatment—The 15 Japanese sailors, comprising the crew of the British bark *Howard D. Troop*, who replaced the white crew when they mutinied in the harbor of Yokohama, complained to their consul in Seattle of the treatment accorded them and food served them. After investigating the affair, the consul persuaded the men to return to work.

The *Howard D. Troop* will be ready to sail for Queens-town for orders with wheat in about two weeks. She is under charter to the Portland Flouring Mills Company. The craft is one of the speediest windjammers in the harbor. She broke the world's record coming across the Pacific, reaching the Columbia River in 20 days.

Portland Lumber Shipments Show Increase—Including coastwise business, lumber shipments for September from Portland total 16,013,627 feet, making it one of the best months of the season. The coastwise traffic amounted to 10,545,000 feet of lumber, despite the fact that five of the steam schooners arriving from San Francisco with general freight went to Grays Harbor, where they received their return cargoes.

September grain shipments from Portland amount to 575,987 bushels, valued at \$51,725.

San Diego

Mexican Subsidized Steamer Line to Operate Out of San Diego—On November 11th the Naveria Pacific Steamship Company, subsidized by the Mexican Government, will inaugurate steamship service between San Diego and Mazatlan, Mexico. A twenty-day round trip service will be made at all principal points on the Lower California coast. Both passengers and freight will be carried.

Steamer Iaquia Will Operate on San Diego-San Francisco Run—The steamer *Iaquia*, which has been engaged in transporting cattle between San Francisco and Eureka on a charter that has just expired, will be placed in the lumber trade between San Diego and Eureka. The steamer will be operated by the owners, the Eastern Redwood Lumber Company, until next summer in this trade, when she will again be placed in the cattle traffic.

Grays Harbor

Stevedoring Firms of Grays Harbor Consolidate—The Grays Harbor Stevedore Company, which was organized a year ago by the local mills to load coastwise vessels, has consolidated with Rothschild & Company. The former company was never very successful in the field and now offer the best possible means of showing numerous arrangements have been completed whereby the Rothschild & Company will control, under the name of the Grays Harbor Stevedore Company, all the stevedore work in Grays Harbor.

Honolulu

Customs Authorities Petition Government for Revenue Cutter—Customs officers at this port are urging that a revenue cutter be assigned to this station to offset the Japanese power boats, which have a wide cruising radius and for which the officials are constantly on watch to prevent poaching and smuggling. Over thirty Japanese-owned fishing sampans have been equipped with gasoline engines within the last few months and the customs officers are unable to keep close watch on them.

Manila

N. Y. K. Meets Competitors in Reduction of Rates—The Nippon Yusen Kaisha has announced a flat rate of \$200 from Manila to Seattle, this action being taken following the reduction by the Canadian Pacific, the Pacific Mail, and the Great Northern Steamship lines. This reduction includes railroad transportation from Seattle to Portland or San Francisco.

The Nippon Yusen Kaisha has also lowered its rates on the European service. Hereafter first-class transportation from Manila to London will be \$260 instead of \$272.50, while the second-class rate will be \$150 instead of the old rate of \$175.

SHIPBUILDING NOTES

Union Iron Works

The congestion of work at the docks of the Union Iron Works is but an indication of tremendous revival of the coastwise trade, especially in the lumber traffic. Many steam schooners, which have been laid up for several weeks, are waiting their turn to be overhauled, so that they can participate in good times.

Union Oil barge No. 9 was at the yards for drydocking and painting.

P. M. S. S. Korea has left the works after receiving engine, boiler and hull repairs.

British steamer Cowrie of the Standard Oil fleet, was at works on a contract for installing heater pipes around fuel oil suction.

The contract for supplying one spare set white metal packing rings for H. P. piston rods, on the British steamer Ashtabula, was awarded to the Union.

P. M. S. S. San Jose received engine, boiler and hull repairs.

Union furnishing Bowes & Andrews, contractors for repairs on the steamer Bandon, material and some labor. The Bandon has been on floating dock No. 2 for several days.

S. S. Santa Rita had engine, boiler and hull overhauled. The contract has been secured for supplying this steamer three manganese bronze propeller blades.

Schooner Fearless on dry dock October 8 for painting and joiner work.

S. S. Porter at works for engine, boiler and hull repairs.

S. S. Coronada at yards on contract for machinery repairs.

Schooner yacht Shidbladner of San Pedro, which has been cruising in northern water for some time, was placed in dry dock for cleaning and painting.

Tug Water Nymph and steamer Dauntless received engine, boiler and hull repairs.

The interisland steamer Helene, which operates among the Hawaiian Islands, is at the yards for deck work, hull repairs, inside and out, and engine and boiler overhauling.

Moore & Scott Iron Works

Moore & Scott have secured the contract for a single screw steel tanker steamer, which will be operated in the bay by the Associated Oil Company. The vessel will be 200 feet in length and will be operated by steam. The contract was let on a bid of \$120,000.

The tug Ada Warren has been purchased from the Warren Improvement Company by the Healy-Tibbitts Construction Company, and is on the dock to receive cleaning, painting and a thorough overhauling.

It will require another week to complete the repairs to the boilers of the Norwegian steamer Tordenskjold.

The Union Lumber Company's steam schooner Brunswick is on dry dock for cleaning, painting and overhauling.

William Cryer

To build for the North Alaska Salmon Company a launch to be shipped to Alaska. The dimensions are: 50 feet in length over all, 12.6 feet beam and 5.6 feet draft. The launch will be equipped with a twin two cylinder 45-horsepower Atlas.

George W. Kneass

Orders have been placed for twenty-four metallic life boats for several steam schooners which are being placed in commission at the present time. The boats will be delivered within the next two weeks.

John Twigg & Sons Co.

Launched on October 16th, a launch for the Government wireless station at Cordova, Alaska. She is 30 feet in length, 6 feet beam and has 11 inches draft. She is fitted with a 10-horsepower Union.

H. Anderson

The San Rafael Golf Club launch Wireless is at the yard for some improvements, among which is a pilot house.

D. W. & R. Z. Dickie are designing a launch for the American Dredging Company, and it will be used for towing service on the bay. The dimensions are: 53 feet in length, 13.6 feet beam, and 6 feet draft. Bids will be called for within the next two weeks.

Bids for the construction of a new ferryboat for the Western Pacific Railroad Company were not opened last week, as was intended, and it has since been learned that the railroad contemplates a change in the plans. In lieu of a wooden hull, a steel one is being considered, and until such time as the revised plans are completed the opening of bids will be delayed.

Steam Schooner Klamath Reaches Bay to Be Equipped with Machinery—The steam schooner Klamath, which was constructed at Eureka for the Charles R. McCormick Company, is at the yards of the United Engineering Works on Oakland Creek. There the vessel will have a 1,000-horsepower engine and all modern appliances fitted, and this work will require at least sixty days.

The Klamath is the largest wooden, and will be the best equipped steam schooner on the Pacific Coast. Its tonnage is 975, and lumber-carrying capacity 1,100,000 feet. The vessel's dimensions are: Length, 220 feet; beam, 41.6, with a depth of 16.6.

The steam schooner Prentiss was on dry dock at the United Engineering Works for repairs to propeller. While on its way up the coast in ballast one of the blades of the propeller snapped off and the steamer was compelled to return.

Steamer Greenwood Returns from Unsuccessful Search for the Steamer Brother Jonathan—The steamer Greenwood of the Whitelaw Wrecking Company has returned to port after spending several months in an unsuccessful search for the steamer Brother Jonathan, lost fifty years ago off Crescent City. Some successful salvage work was accomplished on the steamer Queen Christine, which was wrecked near Crescent City two years ago. Because of the near approach of winter, salvage operations had to be dropped until next summer.

Steamer Princess Charlotte to Be Changed Into an Oil Burner—The Canadian Pacific Railroad steamer Princess Charlotte will, if present plans are carried out, be converted into an oil burner. The proposition to discard coal as fuel and introduce oil is now up before the directors of the railroad, and as soon as their sanction is secured the steamship will be laid off and the change made. It will mean a saving of twenty-six men in the stoke hold of the vessel, and it will permit of the Charlotte making twenty-one miles an hour on a steady schedule.

When the big boat was built it was expected that she would keep up a railroad speed schedule all the time, but in actual practice it was demonstrated during the summer that while her engines were ample for the task, a mistake had been made in the boilers, the pipes being too small to develop the necessary steam when using the British Columbia coal.

Contract for Repairs on Dredge Chinook Soon to Be Awarded—Plans and specifications for the repairs to be

made on the Government dredge Chinook have been completed at Seattle and were forwarded to Washington for approval. The receipt of the approval is expected any day, and four weeks after the contract will be let. The contractor will, according to the specifications, have six and one-half months to complete the work.

A sum of \$200,000 was appropriated at the last session of Congress for expenditure in the alteration and operation of the Chinook. It is supposed that about half this amount will be expended in repairing and rebuilding the vessel. Her boilers will be repaired and the upper deck will be removed. Many changes will be made to her upper works.

Steamer Northwestern to Be Equipped with New Boilers. The Northwestern Commercial Company's steamer Northwestern has been withdrawn from the Copper River route for repairs to her machinery and the installation of new boilers. These improvements will cost \$100,000. The underwriters of the Northwestern have let a contract of \$25,000 for repairs to injuries received in the ice during the early Nome season.

Moran Company Repairing Steamer San Mateo.—The Moran shipbuilding Company of Seattle have secured the contract for the repairs to the steamer San Mateo. The work was let on a contract of \$12,000 to be finished in fourteen days.

Large Dry Dock to Be Operated Near Tacoma.—Rumors regarding the floating dry dock which, it has been said, the Gawley Foundry & Machine Company will erect on Commencement Bay, are becoming more insistent, and it is now known that negotiations for the building of a modernly equipped dock is under way by the Gawley Company. The dock will be capable of receiving any of the largest steamers coming to the Sound.

It is understood that bonds will be issued for building the dock, and it is said they will be for an amount between \$500,000 and \$600,000.

It has also been removed that the Moran Company was considering the location of a dock and machine works at Tacoma. Still another company is reported as considering plans for a large dry dock for Tacoma.

Sealed proposals will be received at the office of the Lighthouse Inspector, 815 Mutual Savings Bank Bldg., San Francisco, at 12 o'clock on October 27th, for repairs to the U. S. Lighthouse Tender Madrone. Blank proposals and other information can be secured at the above address.

BIDS FOR PANAMA CANAL SUPPLIES

Bids will be received at the office of the general purchasing officer of the Isthmian Canal Commission, Washington, D. C., not later than October 25, 1909, for the following supplies: Dynamite, steel castings, steam separators, engineer's transit, paper fasteners, etc. (Circular 538.)

CHARTER MARKET

The fleet of spot ships on the Sound and at Portland are gradually increasing, and some of them are of the opinion that they will be in a position to demand a higher rate than that fixed. From the present trend of the charter market, however, rates show a marked tendency to decrease in both steamer and sail tonnage. The German steamer Utgard, which was idle for five weeks, and which refused a 30-shilling rate from Portland to the United Kingdom, with wheat, was compelled to take a 28s 9d-rate for Portland loading. The decline of rates at Portland will have a similar effect on the Sound, and a drop of 3 pence is looked for.

The light wheat crop of Russia is about cleaned out, and European importers are depending heavily on the Pacific Coast to supply the deficit. It is estimated that 46,400,000 bushels will be available for export in wheat and flour. Washington's wheat crop is credited with 39,100,000 bushels; Oregon's, 14,300,000, and Idaho 8,000,000 bushels.

European buyers this season are anxious for an early arrival of the wheat, and the difference between three months by steamer and five by a sailing vessel is a big factor in favor of the steamer, in addition to the lower rates made by the latter. Another disadvantage under which the sail tonnage is laboring is the large amount of steamers available at low rates, due to the wholesale chartering by the Government of foreign steamers for coal.

Just as in the grain fleet, the steamers are replacing sailing vessels in the lumber export trade from Puget Sound. A year or two ago sailing vessels outnumbered steamers many times over in this line, but the steamers, carrying much larger cargoes and making smarter time, are now in the majority. In addition to those already loading lumber on the Sound the chartered list for lumber trade is steadily growing larger, with but few fixtures for sailing vessels reported.

The Kelburn is the first windjammer which has been engaged to take lumber to Europe for more than two months. Dealers state that business with that section has been unusually dull, but there are indications of an early improvement. Last season heavy shipments were made from Portland to the United Kingdom.

Central America and the West Coast seems to offer the best inducements, with some demand from the Orient, but business with South America show little life. Trade with Australia shows an indication of picking up. Coastwise rates on lumber have an easier inclination, owing to large stocks in California and the necessity of keeping bottoms in action.

The following charters are reported: British steamer Bannockburn, lumber, Portland to Orient; prior to arrival. British steamer Riverton, wheat, Tacoma to United Kingdom. French bark Buffon, barley, Portland to United Kingdom. Norwegian steamer Nordstjernen, lumber, Puget Sound to Tyne, at 60s. American barkentine Mary Winkleman, lumber, Puget Sound to South Sea Islands. Norwegian steamer Christian Bois, lumber, Portland to Orient. British steamer Kassala, coal, Philadelphia to Pacific Coast port, at 13 shillings. German steamer Utgard, wheat, Portland to United Kingdom, at 28s 9d. French ship Duquay Treuin, barley, San Francisco to United Kingdom. American schooner King Cyrus, railroad ties, Willapa Harbor to Guaymas. British bark Kelburn, lumber, Portland to United Kingdom. British steamer Huttonwood, wheat, Portland to United Kingdom, at 29s. General Faidherbe, wheat, Portland to United Kingdom, at 27s 6d. French bark, wheat, Puget Sound to United Kingdom, at 27s 6d; 9d less if to a direct port. British tanker Cowrie, refined petroleum, San Francisco to Orient. German steamer Walbure, wheat, Portland or Puget Sound to Europe, at 30s. American schooner William Nottingham, lumber, Puget Sound to Callao, at 38s 9d. American schooner W. F. Garms, lumber, Puget Sound to Santa Rosalia. Norwegian steamer Eir, recharter, lumber, Tacoma to West Coast. British steamer Magdala, merchandise, San Francisco to United Kingdom. British steamer Campbell, lumber, Puget Sound to Australia.

The Alaska Steamship Company has taken advantage of its option on the steamer Leelanaw and has chartered the vessel for another voyage to Cordova.

TWIN-SCREW PASSENGER STEAMER GOVERNOR

This issue we illustrate what all of our readers will acclaim is one of the finest, if not the finest, passenger steamers on the Pacific Coast, and the largest one owned by the Pacific Coast Steamship Company.

This steamer was designed after the President, which is not quite a sister ship, the plans having been prepared by the Union Iron Works in 1905. G. W. and James Dickie acted as consulting engineers on the vessel and both vessels were built under the supervision of G. W. Dickie at the New York Shipbuilding Company's plant at Camden, N. J.

The contract was signed on May 18th, 1906, and the vessel was completed on August 17th, 1907, and went into service on September 25th, 1907. The vessel was constructed at a cost of about \$830,000.

The Governor is a twin-screw passenger vessel, 416 feet 9 inches in length over all; 399 feet 11 inches between perpendiculars; breadth molded 48 feet; depth molded 29 feet 2½ inches; depth of hold, 26 feet 4½ inches; depth of double bottom 46 feet; deck heights all 8 feet.

The vessel is constructed generally of steel, with three decks and a shelter deck. She has a straight stem and elliptical stern, a flat keel and a double bottom, subdivided by water-tight floors and a longitudinal water-tight division, and fitted complete as water ballast tanks.

She has two steel pole masts rigged as a fore and aft schooner with jib head sails. She has four main hatches, six side hatches on the main deck and two side hatches in the lower deck forward, four coaling ports and eight side ports. Four derricks are fitted to each mast, the two on the after side of the foremast having a capacity of twenty tons. There are two steam winches at each cargo hatch. The masts are wired for wireless telegraphy.

The vessel has a partial shade deck and a complete shelter deck, both covered with wood and caulked, except inside of the house, where they are 1½ inches T. & G. Pine.

The upper deck is a flush steel deck with covering of linoleum in dining saloon, staterooms and passages and tiling in galley, pantry and butcher shop, toilet and baths.

The main deck is of steel with no covering, except in the way of the refrigerating space. The second cabin and crew's quarters are covered with linoleum.

The lower deck is built in at the ends only, the after one covering the shaft alleys.

The vessel carries a crew of 115 men; has 98 staterooms accommodating 294 first-class passengers; 108 second-class men and 36 second-class women.

The pilot house is located on the shade deck together with the captain's room and bath, first officer's room, second and third officer's room, ladies' toilet and 31 staterooms. The steering gear is located in a steel house on the after end. Two cargo hatches and four steam winches are located near the after end forward of the steering gear. Two coaling hatches are located on this deck, trunked down through all the decks to the coal bunkers at each end of the boilers. Two companion hatches lead to the shelter deck amidships and two at the after end. Four life-boats hang in davits on the shade deck with the remaining eight boats and eight rafts on the top of the houses.

The shelter deck has a steam windlass forward with two chain stoppers and all necessary fittings for properly handling the stockless anchors. The two forward cargo hatches are open to the weather on this deck, with four steam winches for handling cargo.

The following rooms are located on the shelter deck: Purser's room, freight clerk's room, barroom, second

cabin lounging room, linen room, smoking room, social hall, ladies' toilet, men's toilet, 59 staterooms for the first-class passengers and two bathrooms, each of which connect with two staterooms.

The main stairway to the diningroom is in the social hall, also stairway in lounging room down to the upper deck. The stairway in the after end of the deck house goes down to the men's toilet on the upper deck. The steam capstan is located right at the stern.

All of the mooring lines to the wharves are handled from this deck through 18 fairleaders fitted on steel saddles over the waterway to six pairs of bollards. Mooring pipes and roller chocks are fitted in the bow and a large chock in the stern.

The houses are of steel. The accommodation ladder is arranged to fit either side of the ship from this deck to the wharves or to boats coming alongside.

On the upper deck the fore peak is divided into messrooms for seamen and firemen. Immediately aft of these quarters are the washroom and water-closets, for the second cabin men, and the deck lockers. Between the cargo hatches forward the second cabin diningroom is located.

In the forward end of the deck house are the second-class pantry, washroom starboard, and also two rooms for second-class women passengers. In the same group are the rooms for three cooks, second cabin steward's room, chief cook, baker, storeroom, galley, scully, bakery, butcher shop and first cabin pantry.

On the port side are located the second class women's toilet, two rooms for second-class women passengers, officers' toilet, porters' stores, room of porter, boatswain and watchman, room for carpenter and electrician, one spare room, room for quartermasters, room for watertenders, room for oilers, second and third engineers' room, first engineer's room, chief engineer's room, men's bath and ladies' bath and toilet.

Along the center are the steward's stores, messroom, boiler and engine casings and the coaling trunks.

Aft of these is the main diningroom, with seats for 186 passengers, and aft eight first-class staterooms, chief steward's room, stewardesses' room, men's toilet, and under the social hall stairs the wine locker.

Forward on the main deck are the quarters for the sailors, firemen and coal passers, men's second-class accommodations, refrigerating spaces on the starboard side of the engine hatch, and quarters for the waiters. Forward is a stairway from the shelter deck to the second-class mess quarters, and one to the firemen's quarters; also aft in the waiters' quarters from the upper to the main decks.

The compartment on the main deck immediately aft of the engine casing is thoroughly ventilated by means of a blower capable of changing the air every three minutes.

The ship is fitted with electric lights, call bells, search light, engine telegraph, voice pipes and refrigerating machinery.

The vessel is fitted with twin tripple expansion surface condensing engines, with cylinders, 25½, 40½ and 70-inch diameter, and a common stroke of 48-inch, developing 5,500 horsepower at 85 R. P. M., which drove the vessel at a speed of sixteen knots on the measured mile.

The boilers are eight in number, single ended, Scotch marine boilers, four at each side of the ship, with one fireroom common to all. The working pressure is 180 pounds per square inch. The boilers are 15 feet in diameter and 11 feet 10 inches long, with a total heating surface of 17,872 square feet.

MARINE INTELLIGENCE

NOTICE TO MARINERS

Office of U. S. Light-House Inspector,
12th District.

813 Mutual Savings Bank Building,
704 Market Street.

San Francisco, Cal., October 13, 1909.

Point Arguello, California. List of Lights and Fog Signals, Pacific Coast, 1908, page 12, No. 15, and List of Lights, Buoys, and Daymarks, Pacific Coast, 1908, page 17.

Notice is hereby given that the 12-inch whistle at this station was replaced by a 6-inch siren on October 10, 1909, without other change.

Blunts Reef, California. List of Lights and Fog-Signals, Pacific Coast, 1908, page 24, No. 60, and List of Lights, Buoys, and Daymarks, Pacific Coast, 1908, page 36.

Notice is hereby given that Blunts Reef Light-Vessel No. 83, off Cape Mendocino, California, heretofore reported adrift and proceeding to San Francisco, was replaced on her station on October 6, 1909.

By order of the Light-House Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, 12th Light-House District.

Office of U. S. Light-House Inspector,
12th District.

813 Mutual Savings Bank Building,
704 Market Street.

San Francisco, Cal., October 14, 1909.

San Pablo Bay, California. (List of Lights, Buoys, and Daymarks, Pacific Coast, 1908, page 32.)

Notice has been received that Petaluma Inlet Beacon No. 2½, a red three-pile beacon in Petaluma Inlet, San Pablo Bay, Cal., has been broken off and the stump is a menace to navigation. The beacon will be rebuilt as soon as practicable.

By order of the Light-House Board.

W. G. MILLER, Commander, U. S. N.,
Inspector, 12th Light-House District.

The inspector of the Twelfth Light-House District, San Francisco, has issued the following notices to mariners:

San Pedro Harbor, California—List of Lights and Fog-Sig-

nals, Pacific Coast, 1908, after No. 9, page 10, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 16.

Notice is hereby given that San Pedro entrance beacon light, maintained by the Pacific Coast Steamship Company, was established August 14, 1909, 80 feet 7 degrees 30 minutes true (NNE mag.) from San Pedro entrance buoy No. 2.

The light is fixed red, 20 feet above the water, shown from a white, four-pile beacon, surmounted by a red lamp house, on the following bearing: Deadman's Island, Coast Survey signal, 345 degrees true (NNW ½ W mag.).

Point Arguello, California—List of Lights and Fog-Signals, Pacific Coast, 1908, page 12, No. 15, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 17.

Notice is hereby given that about October 10, 1909, the 12-inch whistle at Point Arguello Light Station, California, will be replaced by a 6-inch siren, without other change.

The following affects the List of Lights, Buoys and Daymarks, Twelfth Light-House Subdistrict, 1909, page 17.

HAWAII.

Oahu Island, Pearl Harbor—Entrance Buoy 3, reported moved about 100 feet to the eastward of its correct position, will be replaced as soon as practicable.

By order of the Light-House Board.

V. S. HOUSTON, Lieutenant, U. S. N.,
Assistant to the Inspector, Twelfth Light-House District.

NAVIGATION AT PACIFIC ENTRANCE OF PANAMA CANAL

In the direction for ships using the five miles of the canal at the Pacific entrance now open to navigation, published in the Canal Record of August 25, 1909, and communicated to the shipping interests of all maritime nations, an error was made in the azimuth of the center line, which was given as 151 degrees 44 minutes and 35 seconds. The correct azimuth is 141 degrees, 44 minutes and 35 seconds, and the directions should therefore read:

The center of the channel at the sea end is about

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HYDROGRAPHIC OFFICE

DEPTH AT MEAN LOW WATER, ENTRANCE TO HARBORS

TIDE TABLE TO WEEK ENDING SATURDAY, OCTOBER 16
Golden Gate Entrance to San Francisco Bay.

OCTOBER											
Moon	Day of			Time and Height of High and Low Water.							
	W.	Mo.	T.	H.	T.	H.	T.	H.	T.	H.	
1st q	M	18	2:48	4.2	7:13	3.0	12:51	5.2	20:15	0.3	
	Tu	19	3:58	4.1	7:56	3.3	13:19	5.1	21:07	0.3	
	W	20	5:09	4.2	8:48	3.5	14:02	5.1	22:12	0.3	
	Th	21	6:15	4.3	10:05	3.6	15:13	4.9	23:04	0.3	
	F	22	7:02	4.5	11:28	3.5	16:54	4.7			
Full	S	23	0:05	0.3	7:40	4.8	12:45	3.2	18:32	4.7	
	Sun	24	1:04	0.4	8:16	5.1	13:46	2.5	19:47	4.9	
	M	25	2:02	0.5	8:50	5.3	14:40	1.8	20:50	5.1	
	Tu	26	2:53	0.7	9:25	5.6	15:30	1.0	21:48	5.3	
	W	27	3:38	1.0	9:58	5.8	16:12	0.4	22:16	5.4	
1st q	Th	28	4:22	1.2	10:32	6.0	17:00	-0.2	23:41	5.4	
	F	29	5:04	1.6	11:11	6.1	18:48	-0.4			
	S	30	0:45	5.2	5:48	2.1	11:50	6.1	18:40	-0.8	
	Sun	31	1:49	4.9	6:33	2.6	12:32	6.1	19:33	-0.8	
NOVEMBER											
N	M	1	2:57	4.6	7:22	2.9	13:17	5.8	20:28	-0.7	
	Tu	2	4:08	4.7	8:18	3.3	14:05	5.5	21:28	-0.4	
	W	3	5:16	4.6	9:29	3.5	15:09	5.1	22:27	-0.1	
	Th	4	6:17	4.8	10:58	3.6	16:27	4.7	23:28	-0.1	
	F	5	7:10	4.9	12:30	3.4	17:50	4.4			
3d q	S	6	0:23	0.5	7:49	5.2	13:40	2.9	19:08	4.4	

Time used, Pacific Standard, 120th Meridian W.
0h—midnight 12h—noon, less than 12—Forenoon, greater than 12—afternoon, higher numbers—12—afternoon time.
N—New Moon, E—Moon on the Equator, N. S.—farthest N. or S. of Equator.
A. P.—Moon in apogee or perigee.

Place	Feet	Date	Remarks
Grays Harbor	16	Oct. 8	Inside bar buoy gone
Willapa Bay	27	Sept. 5	No change in channel, 16 ft. M. L. W. in channel to South Bend
Columbia River	25	Oct. 4	25 feet in channel to Portland
Nehalem River	6	Sept. 23	Channel ¼ mile south of bar buoy and very shifting
Tillamook Bay	9	Apr. 30	Depth of 8 ft. at L. W. in channel to Garibaldi.
Yaquina Bay	9	Aug. 10	Channel shifting to south.
Siuslaw River	4	Oct. 1	
Umpqua River	9	Oct. 3	Channel 100 feet north of buoy
Coos Bay	17	Oct. 5	12 ft. at L. W. to North Bend; 12 ft. at L. W. to Marshfield
Coquille River	8	Oct. 4	Channel good, best water in center between north and south jetties
Rogue River			No opportunity for soundings lately, before rise there was 7 feet on bar.
Klamath River	3	Oct. 5	Closed to navigation
Humboldt Bay	21	Oct. 4	
San Pedro Bay	19	Oct. 1	No change in channel.
San Diego Bay	25	Aug. 8	No change in channel.
San Pablo Bay	24	Apr. 21	Depth in dredged channel.

6,000 feet distant from San Jose Rock, the outer one of the cluster of five islands immediately south of Panama and about four miles distant from the city of Panama. The azimuth from this center of channel point to the triangular station on San Jose Rock is 240 degrees.

The channel is open from this point to Balboa wharf, a distance of about five miles, to its full 500-foot bottom width, although not to its full depth, and the azimuth of the center line is 141 degrees 44 minutes and 35 seconds.

IMPORTS AND EXPORTS OF THE UNITED STATES IN THE MONTH OF AUGUST, 1909, AND EIGHT MONTHS ENDING AUGUST, 1909

The statement of exports and imports issued by the Bureau of Statistics of the Department of Commerce and Labor today presents figures for the one month and the eight months ending with August, 1909, compared with like periods in 1908. The August imports were \$116,025,936, an increase of \$24,842,400 over the imports of August, 1908; exports \$110,125,679, a decrease of \$319,376 compared with August, 1908. For the eight months ending with August, 1909, the imports were \$946,511,582, an increase of \$246,441,398 over the corresponding months of last year; exports \$1,007,433,801, a decrease of \$84,006,343 compared with the corresponding period of last year. The excess of exports over imports in the eight months ending with August, 1909, is \$60,922,219, a decrease of \$330,447,741 when compared with the excess of exports in the corresponding months of last year. Dutiable imports in the eight months ending with August, 1909, were valued at \$525,660,775, against \$392,779,465 in the corresponding months of last year, an increase of \$132,881,310; imports free of duty in the eight months ending with August, 1909, \$420,850,807, against \$307,290,719 in the corresponding months of last year, an increase of \$113,560,088. Dutiable imports during the month of August, 1909, were \$62,799,117, against \$49,467,755 in August of last year; free imports in August, 1909, \$53,226,819, against \$41,715,781 in August of last year.

The director of the census at Washington has compiled a report on wireless telegraphy in the United States for the year 1907, and in this report is given the first official statistics of the six companies operating in the United States. All six companies are incorporated and for the year mentioned transmitted 163,617 messages. These were sent with the aid of 122 tower stations located at advantageous points on the Atlantic and Pacific coasts, Gulf of Mexico, the Great Lakes, and in Hawaii. The total income of the companies was \$122,154; the total cost

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of operation \$169,782, leaving a net deficit of \$47,628. Three of the companies on the field covered expenses. The authorized capitalization of the six companies consisted of stock with a par value of \$39,450,000. Two of the companies issued their stock at a par value of \$100; three at \$10, and one at \$1 per share.

The report further states that, despite the discouraging figures, this invention has been established on a firm commercial basis, and will soon be yielding a handsome profit to those engaged in the promotion.

THAT RATE WAR

That rate war, which had its inception in San Francisco, has involved the whole Coast, and subsequently all the passenger steamship companies engaged therein. There is no doubting the fact that the companies engaged in this contest are carrying an enormous amount of passengers, and some go so far as to say that carrying passengers between San Francisco and San Pedro for one dollar is profitable, because of the business done, and, further, that they will maintain that price indefinitely.

But one redeeming feature of the struggle is that the fact has been brought, forcibly, it is true, to the attention of the traveling public, that they can travel by sea with just as much comfort and far more cheaply than by rail. It is reasonable to believe that this rate war was instrumental in bringing about the revival of the coastwise shipping at the present time affecting us. The fact remains, nevertheless, that it has acted favorably to the coastwise traffic in more ways than one.

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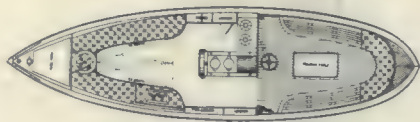
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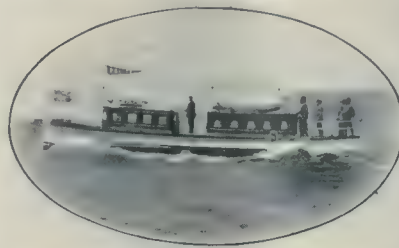
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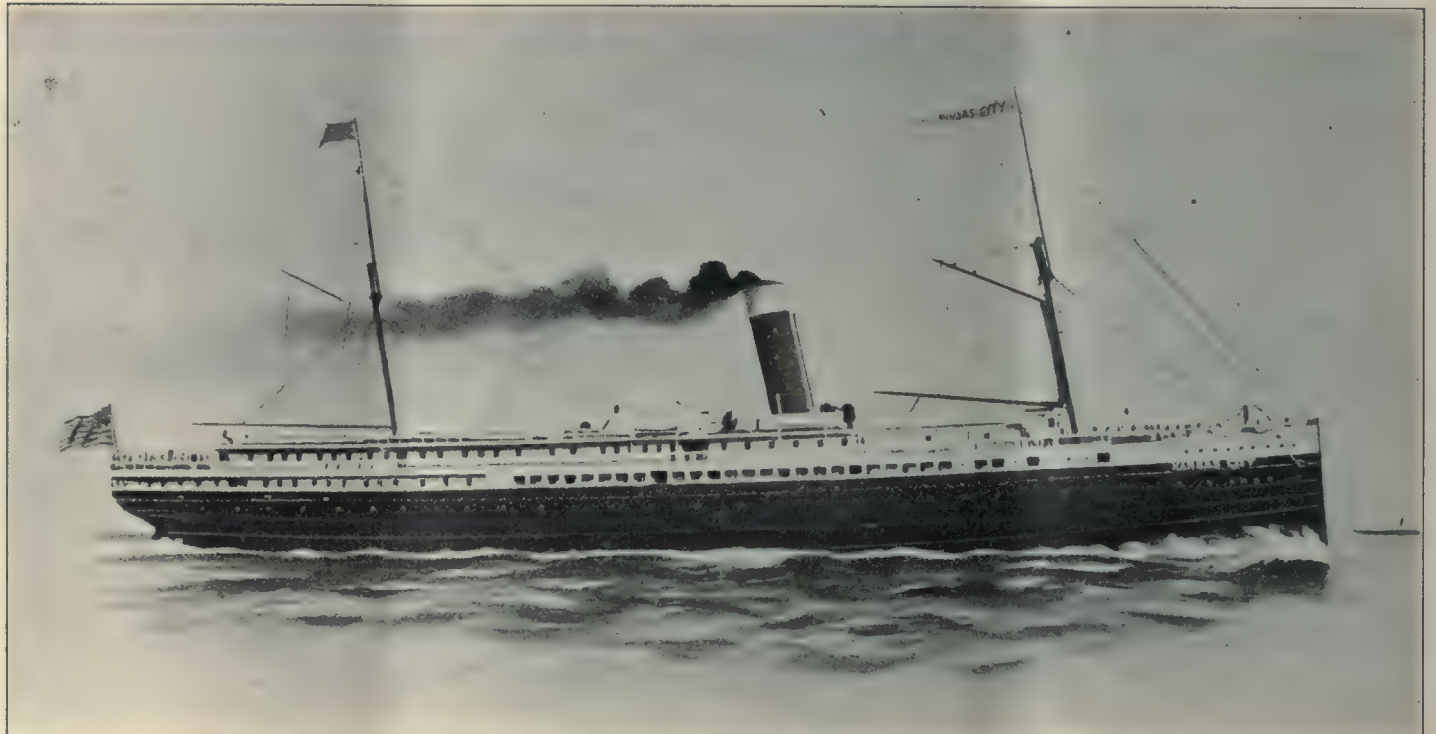
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Pacific Merchant Marine

Volume II

SATURDAY, NOVEMBER 6, 1909

Number 21

Discussion of a Proposed Method to Rehabilitate the American Merchant Marine.

The coming session of Congress promises at least the adoption of tentative measures in behalf of a United States merchant marine. The people are prepared to accept almost any form of relief tending towards improvement of over-sea traffic. Whatever may have been the influence that has retarded the growth of a merchant navy in the United States, Congress and the people realize the imperative necessity of immediate steps towards rehabilitation.

The adherents of every form of relief are prepared and anxious to review the subject of the decline of American shipping, and to present new data bearing upon this vitally important subject. While the advocates of ship subsidies represent the greatest number of citizens whose knowledge of the merchant marine question is worthy of the greatest consideration, also has the ship subsidy policy the greatest number of opponents. If the opponents of ship subsidies are sincere in their beliefs all honor is due to them for their determined opposition. On the other hand, if the opposition is offered with the smallest iota of doubt, or the most monumental form of selfish interests, then must they, the opponents, participate proportionate to their insincerity in repudiating the fundamental principles of American progress.

It is absolutely impossible to conceive that Congress will entirely abandon further efforts in the behalf of an American merchant marine. Admitting the question to be the most important with which Congress has contended, some measure is available to give the much needed relief.

Ship subsidies, postal subventions, discriminating duties, free ships, Government ownership and many other forms of relief have been suggested, and received a certain amount of consideration, resulting in the gradual decline of the industry. Possibly Government ownership in a modified form may have some merit that would appeal to those opposed to every form of relief thus far presented. Experience has taught the human family that nothing has a greater tendency to promote improvements in any of the affairs of life than its trial under a new set of conditions. Article 1, section 8, of the Constitution of the United States gives to Congress the power "To regulate commerce with foreign nations and among the several states and with Indian tribes." Sixty years of patience and the American people are still waiting for the delayed product of a long series of efforts tending to the development of trade with foreign countries, as proposed and intended by the above mentioned clause of the Constitution. On the other hand, foreign nations are profiting from the laxity of the United States in the matter of over-sea traffic,

and American ships have been driven entirely from the oceans of the world.

As a result of neglecting the fundamental principles of trade extension 90 per cent of American goods shipped to foreign countries is shipped in foreign vessels, subject to conditions which from the very nature of things are not, and never will be, conducive to the upbuilding of American commerce.

The industrial progress of the United States obtains by the protection made possible and wisely provided for in the Constitution. The difficulties overcome by Congress in the development of the manufacturing industries of the United States have never passed through the experimental period. The means of protection was a part of the original manuscript, conceded to be the most important document of organic law in existence, and of which the law relating to foreign commerce was and yet remains a component part.

Notwithstanding the many differences of opinion expressed in Congress for and against protection to American industries, right prevailed, and we of today equally share in the prosperity of the greatest industrial federation known to history. With the same incentive for the regulation of commerce with foreign nations the United States guarded the goal of commercial supremacy successfully against the individual and collective attacks of the world powers. This and every other achievement worthy of note in the history of the United States was accomplished under conditions primitive in the extreme, compared with the superior advantages of all adversaries.

The American people are perfectly familiar with the effects resulting from the loss of its commercial supremacy. If they are seeking the cause thereof the first question that confronts them is, Has defeat come from within our own lines? or, Have we been suppressed by a new and unknown foreign force? "Facts are stubborn things," and for the first time in history the American citizen is forced to give an evasive or apologetic answer to a question reflecting upon American enterprise.

Congress and the world know of the rapid decline of American shipping, that the United States is paying to foreign vessels \$300,000,000 annually for the transportation of American goods to foreign countries, that less than 10 per cent of the exports of the United States is carried to foreign countries in American vessels by a fleet of ten vessels aggregating 120,456 tons, four of which vessels ply between New York and Southampton on the Atlantic, one between Seattle and the Orient, and five between San Francisco, Hawaii, Japan, China and Hongkong on the

Pacific; that of the total of 7,365,445 gross tons of documented wooden and metal vessels of the United States that less than 2 per cent is operating in the foreign trade, the balance being employed in the coastwise traffic under the protection of the coastwise laws.

Considerable more could be added to demonstrate the inconsistency of attempting trade extension under present conditions. Except as above mentioned, American vessels are not engaged in the foreign trade, and other than the visits of the war vessels of the United States to foreign countries the American flag has entirely disappeared from the oceans of the world.

Congress and the world are familiar with the methods of foreign countries by subsidies and other forms of protection, granted to their shipping interests, and by which they have in some cases monopolized the over-sea traffic, while others by similar methods have risen in a few years to a place among the world powers and surpassed the United States in the matter of trading on the high seas. Conditions would indicate that the United States has neglected this vitally important question. Whatever may prove to be the influence or sentiment that has nourished the neglect, the United States must realize that as they are doing nothing in this matter that they have ceased to do more, and that every day's neglect adds tenfold to all efforts for the recovery of the lost ground.

If ship subsidy has become so distasteful to the American people that they will reject it at the sacrifice of supplying the world with American goods, the science of political economy should be raised to a higher plane and some other line of action developed by which to bring order out of chaos.

Government ownership, when applied in a modified form to the subject of an American merchant marine, possesses many points of merit. It is at least qualified to offset every possible argument that has been raised against the ship subsidy policy. If the latter statement can be proven results may not follow the adoption of that policy; but the newer system will, in the main, offer a new line of thought, and possible suggestions on other lines by which to completely eliminate the visionary designs upon the Treasury of the United States, as have been attributed to the stanch and able advocates of an American merchant marine. The Constitution of the United States vests Congress with the power of creating industries. No section of the Constitution expresses power more direct and with less limitation than the regulation of commerce with foreign nations; yet, and with all this freedom of action, the staple industry of this country, likewise with all other countries with commercial ambitions and advantages, must depend more or less on government aid.

From casual observation many are led to believe that the United States has less need of a merchant navy than any other of the maritime nations of the world. The fallacy of this belief is sounded in thunderous tones by every wave and ripple of the oceans, and fits at no point in an argument for or against an American merchant marine.

The coastwise laws of the United States involve a principle which, if applied to foreign traffic would have a beneficent effect on the subject, and lessen the responsibility that the Government must sooner or later assume in its development. Under present conditions the regulations of the Congress of today are liable to be abrogated by the Congress of tomorrow. No definite line of action or fixed principle offers encouragement to the resourceful brains of America whereby even the enormous subsidies paid by foreign countries would become inoperative when pitted against the ingenuity that loads, carries 1,000 miles and unloads a ton of coal on a vessel of the Great Lakes at less

than one half the price that the same ton of coal could be delivered from the sidewalk into a residence basement. In the absence of a fixed policy and the resultant uncertainties of what may be done by the Congress of today, or that of tomorrow, the United States is absolutely at a standstill in the matter of a merchant marine. If they have met their Waterloo they are better qualified to begin again at the beginning with greater prospects of success than under the present system.

The essential element of success on this question is to establish a set line of action; one that appeals to some from security or a certainty; a line that leads to somewhere or something. To the same extent as confidence is established in the Government to maintain and perpetuate a fixed principle of encouragement to American shipping on the high seas, even though unaccompanied by any other form of assistance, to the same extent shall the value of foreign assistance be lessened, and the United States will have taken a step forward in the rehabilitation of a merchant navy.

Ship subsidies and other forms of government aid involve questions of peculiar nicety and importance. The problems to be solved are how to give the greatest amount of needful help with the least possible cost to the donor, the undue reliance upon it by the participant and the susceptibility of abuse. Such aid further involves the question of perpetuity, or the stage of the industry at which the assistance may be withdrawn. Every objection raised to a merchant marine comprises these questions. Each thinking citizen in the community, without regard to his political belief, admits the necessity and importance of a merchant fleet. His objections, if any, are based solely upon a reasonable solution of the questions involved.

Comparing the objections raised from the basis of the questions mentioned, the amount of money involved bears no comparison to congressional appropriations. Granted under a different form and name than is inferentially drawn from the word subsidy, when applied to the up-building of a merchant marine. Almost without exception the Government has received reasonable returns from every appropriation made by Congress, and with the same degree of certainty all such appropriations are subsidies, and in many cases a more exaggerated form of subsidy, than has ever been applied to the subject of a merchant marine. The question may be raised of the accuracy or logic of this statement. Any government appropriation, from land grants for railroads, the building of the Panama Canal or a postoffice building, furnishes abundant proof of the statement. There may be many in the community who do not approve of money expended for any of the purposes just mentioned. The argument can be strengthened by reference to any other instance of Government appropriation.

Whatever argument has, or ever will be, made against the building of the Panama Canal has, or will be, based upon the cost of its construction. The importance and necessity of the canal is beyond the range of its most bitter opponent. The latter argument is based on the benefits that will accrue to the United States by reason of more rapid communication with all other nations of the world, and by which the products of the Atlantic and the Pacific coasts of the United States can be, vice versa, transported more economically than by railroad; and also with foreign countries. To what extent the completed canal will have upon the commerce of the United States and the world in general is a matter of conjecture. Viewed from the standpoint of American enterprise in the transaction, the United States has yet to create the means of returns from the investment and upkeep of this great waterway.

It is beyond conception to believe that the Government will repudiate the principles that prompted the construction of the canal, or the prominent factor, as above noted, that made it a reality, or that it ever will be profitable from the exclusive use of foreign tonnage. Coastwise traffic, it is true, will be facilitated, but its advantages, in the event of war, can be tested only by experience. The opening day of the Canal to the commerce of the world will be the first-born of American enterprise. Congress must be the sponsor, and prepare to celebrate the event. Will the proverbial silver spoon be in evidence, or will they decide to use alien chop sticks? It would be a sad commentary on American statesmanship to show that \$500,000,000 was expended on the Panama Canal, from which no benefits were derived by the American people; and compare that statesmanship with the policy of Great Britain, who has maintained commercial supremacy on the oceans of the world since 1835 (72 years), at a cost of \$300,000,000 paid in ship subsidies.

The Spanish-American war opened the eyes of Congress to a set naval policy. That policy had its moral effect in the development of the United States Navy proportionate to the fighting efficiency of both ships and men composing the squadron. Peace or war, each have their money value. The Spanish-American war demonstrated to the United States that war had twice the value of money; manifested by the necessity of transports, and other auxiliary vessels for the Navy. Unfavorable as conditions were in 1898 in acquiring an auxiliary fleet, the increased demands of the Navy of today and the greater material increase of American tonnage suitable for the transport service, is obviously an important factor of decrease in the efficiency of the Navy. The greatest functions of the Navy are, the protection of commerce and coast defense.

The Navy takes its place in national affairs the same as all other items included in the expense of government; its close affiliation with the commerce of the country and maritime matters in general, require that it is an element of discussion, in the consideration of any subject to which it is so closely allied as that of a merchant marine; it does not follow, however, that the partial irrelevancy indicates criticism of the importance of building and maintaining a Navy in the United States in the highest state of efficiency.

The peaceful occupation of the Navy is when the cost of maintenance is at a minimum. The manning of a war vessel in time of peace qualifies the men to acquire the necessary technical knowledge to work harmoniously according to naval discipline when occasion requires. It is safe to assume that twenty-five per cent of these men are not available in case of war. Necessarily these, and additional men must be replaced by the inexperienced. If it were possible to obtain the men from those accustomed to marine affairs, the efficiency of such men are almost at the maximum. On the other hand, if taken promiscuously, the effectiveness of the vessel is materially lessened. In either case the excitement on board a war vessel during an engagement raises this contingency considerably above the point of perfection that the crew would acquire under peaceful conditions. The war vessel in action is a concrete mass of men and machinery, the weakest point of which is the thoughtless error or indecision of a single untrained individual.

Love of home, shore attractiveness and innumerable other causes have been stated as reasons why the American boy does not engage in marine occupations. The one and only reason is known to every boy of any nation

that ever floated the most primitive toy. The most strenuous days of the clipper ship are sufficient evidence of attractions of sea life, to say nothing of the wonderful progress and innumerable occupations created thereby, when viewed from the standard of the marine of today, and the uncertainties of time consumed on a voyage in a clipper ship, reduced to minutes by the modern vessel, and the average voyage of today in a modern steam vessel, consisting of three weeks.

Considerable importance has been given to the higher rate of wages paid by the land industries, to demonstrate a void of interest in marine occupations. This is the strongest possible argument that can be used. Why the government should equalize the land and sea industries. But the opponent says: Land industries have grown under a protective tariff, which is also a source of revenue to the Government, while to rehabilitate the merchant marine by the principle of ship subsidy, has the direct opposite effect. This is the bread and water argument of the couple contemplating marriage. The girl's assent: I am willing, even if I have to live on bread and water. The young man's assent: All right, you furnish the bread and I'll try and hustle the water.

A more direct and practical application of the foregoing is contained in the report of the Second Assistant Postmaster General for the year ended June 30, 1908. The cost of transporting the foreign mail for that year was \$2,695,285. The Postoffice Department sold sea-postage during the same period at an estimated value of \$8,500,000, making a profit of \$5,804,715. Of the amount paid for transportation, American vessels received \$1,441,094.37; foreign vessels received \$1,254,191.50. The accrued profits to the Postoffice Department, if granted to the rehabilitation of a merchant marine, would establish American shipping lines, as representing American merchants, in most if not all foreign countries that now have no direct communication with the United States except by the uncertain sailings of foreign vessels, having no interest in when, in what condition, or the quality of American goods they delivered or carried. But why take the profits of the Postoffice Department to build a merchant marine? The profits of the Postoffice Department were made possible by sea-postage only. The increased sale of American goods through the medium of American ships would have made up nearly if not all of the deficit of \$16,910,278.99 sustained by the Department in its total volume of business on sea and land. The Government furnished the bread and the Postoffice Department hustled the water.

The relationship between the Navy and the merchant marine opens an avenue of investigation that gives hope towards rehabilitation of the merchant marine fleet. The nations of the world will sooner or later find employment for their idle navies in the event of such between two foreign powers that give Government support to or otherwise encourage the shipping business in any form; the foreign commerce of the United States will be seriously affected; foreign vessels will be withdrawn from the American trade to serve as auxiliaries to vessels of war. The figures quoted in another paragraph show the available tonnage owned in the United States by which to replace the absent ships. If the supposed war should be prolonged drastic measures by the United States would be required to control prohibitive freight rates in the foreign trade. In the event of the United States being engaged the conditions would become more serious, and of greater moment than a matter of freight rates.

In times of peace the Navy serves its purpose without an auxiliary fleet; during war, ships of service are a

most vital necessity. The fighting squadron is a stern reality. If, as has been claimed, owing to the almost daily progress of naval architecture, there is no such thing as a modern battleship, a similar statement does not apply to merchant vessels, and the recent methods of loading and unloading them, a complete chain of which, built according to American ideas by American mechanics, notwithstanding the higher wages paid in the United States, would reduce the value of foreign subsidies and other methods of assistance. The importance of an auxiliary fleet for the Navy in time of action is obvious. To acquire it at short notice would be a repetition of the ridiculous experience of the late war; to dispose of or maintain it upon the cessation of hostilities, means the other extreme.

If the Government requires a Navy, auxiliary vessels are necessarily an important adjunct of its efficiency, and just as important that the Government should own or have control of one as the other that could be used in peaceful times as a merchant marine, and an auxiliary fleet in the event of war, the method of accomplishing which is vested in Congress. We will presume to offer a suggestion, to indicate, as we believe, that every fair-minded citizen of the United States is prepared to do likewise, and that they will support Congress in the adoption of a measure to acquire a merchant marine that is worthy of reverence as the emblem of American commercial independence.

We propose that the Government shall build according to demand as hereinafter specified sufficient vessels to form at least the nucleus of a merchant marine; plans and specifications to be prepared by the Navy Department, jointly with a "Foreign Commerce Commission," the members of which shall be elected by a majority vote of the Senate and House of Representatives in Congress assembled. Nominations for membership on the commission shall be made by the President of the United States at each annual session, the nominations to include the name of not more or less than one nominee from each state (the nomination to consist of say ten members, and one or more to be retired annually). Upon demand by a citizen or number of citizens of the United States, who shall pay a just fee for investigation, and subsequently, in case the application is granted, shall deposit in the United States Treasury such securities as the Commission shall require for the performance of any agreement made, and security against loss, flagrant abuse of a vessel, and charter price agreed upon. The Commission shall advertise for bids for construction of the vessel decided upon, consistent with its adaptability for use by, and subject to the call of the Navy Department in case of emergency.

To this rough outline must be added the details which are to animate and guide the proposed plan, to raise it above unjust criticism, and finally, to reject it for the immediate consideration and adoption of a more practical and equitable method. We propose to apply a few of the more important details and to qualify them with a brief criticism.

Foreign capital may be tempted to invest and take a great share of the profits created exclusively for the benefit of American citizens. A remote possibility in operating an American ship pure and simple, and manned by American citizens, of which a Navy appointee shall represent a certain specified amount of tonnage.

The cost of building a vessel in the Navy Yards is greater than if done by private firms, and the requirements of the Navy Department are prohibitive when compared with vessels built by private capital, especially true of foreign countries. The purpose of the bill is to acquire and maintain a merchant marine and to supply a measurable amount of protection to every branch of the industry, the ship building branch being one of the greatest importance, embracing as it does demands for a more diversified class of the products and manufactures of the country than any other. Admitting the importance of maintaining a continuous force of efficient workmen

in the Navy Yards, the latter contingency must be met, with or without a merchant fleet, which, if built by private capital, precludes participation by the Navy forces, and if conducted by the Government as proposed, should be indulged in by the Navy Department on the same competitive basis that the shipbuilder estimates.

The cost of building a vessel in foreign countries, compared with a similar vessel in the United States, is from 30 to 40 per cent higher. The difference in cost applies to the standard class of both the vessel and its equipment, and to a greater extent in the equipment than applies to the superstructure. Every consular report submitted contains evidence to verify the fact of foreign preference for American standard articles, produced for all of the other industries except that of shipbuilding. The maritime policy of most foreign nations for many years has been conducive to perfection of and cheapening the cost of products for marine equipment. Casual observation of the lay person would convince the most skeptical of superior quality of design, workmanship and finish of the joiner work on an English or German vessel compared to that of an American vessel; the same observation applies to winches, blocks, dynamos and numerous other articles of marine equipment. The statement is not consistent with the marvelous progress of American industries, made possible by protection of those industries, except by a comparison in detail of the two equipments from an unprejudiced standpoint. For instance: The United States manufacture gas engines for agricultural and marine purposes. Owing to its peculiar advantages in farming and motor-boating, this industry has within a few years risen to one of considerable importance, and the product is sought by the civilized countries of the world. England and Germany have been developing the ship-joiner industry for one hundred years. With the adoption of an assured perpetual maritime policy by the United States, it is safe to assume that the industry would reach a higher stage of perfection in the United States in the same number of weeks. Standardizing in the shipbuilding industry does not imply that all ships must be built on exact similar lines, but it emphatically proclaims that, if the United States becomes a maritime nation with reasonable assurance of perpetuating the industry, that the people will engage financially and mentally with the same degree of success and superiority as have marked their progress in other lines.

The cost of materials entering into the construction of ships in foreign countries is much less than that of similar goods in the United States. This is true from the fact that steel in the United States is protected, and thus permits the American manufacturer to often sell his products to a free trade country at a much less price than he will sell it to an American customer at home. If the American steel manufacturer is protected to the limits of this gross injustice, verified by an instance of record to substantiate the fact that an American steel merchant sold 100,000 tons of steel plate delivered in Belfast, for \$24.00 per ton, while the American customer is asked \$32.00 per ton at the steel mills. Free ships under the greatest conceivable stress of conditions should be eliminated from the discussion of the merchant marine subject, but free shipbuilding material, with a limitation as such, will enter into the construction of vessels built in the United States for the foreign trade, and a still more ambitious purpose, if you please, namely, vessels built in the United States to be sold abroad, is a means of preventing the abuse of a subsidy operating under the guise of a protective tariff.

The elementary features of the proposed measure, so

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It is a remarkable phase of the merchant marine subject that, while the most disinterested citizen will admit the importance of a merchant fleet, that the greatest number of the population believe that the only means of acquiring it is by ship subsidies. The United States has reached a period of productiveness in its industrial and agricultural progress that has established the international value of most of the commodities of the world. It does not require a great stretch of the imagination to perceive why this condition was brought about. The total area of continental United States is 3,026,789 square miles, from which can be extracted, even in the most limited product, sufficient to make the American people the ruling factor in the markets of the world. The more limited area of the older and progressive foreign countries, accompanied by a greater number of population, necessarily limits the great diversity of products, and the possibility of an excess thereof. Naturally foreign countries have been driven to the expedient of the most highly developed system of interchange, and in this extremity have forced their land industries to pay tribute to the ocean traffic. While the American people have reason to remain secure in their inheritance from the bountiful hands of nature, and point with pride to their marvelous progress and their broad fields of productiveness, the one great expansive field of ocean commerce, granted to all the people of all the world, as a source of pleasure and profit without restriction, and participated in by them almost from the beginning of time, is viewed by the American people as barren and unproductive, if government assistance is required for its development. This latter principle repudiates every other condition and source of American progress; it goes further, it repudiates the very essence of primary business forms.

Commerce implies something of magnitude. It may be called a commodity and reach the same proportions; or an

industry to which a similar definition may be applied. The dictionaries define the word as trade on a large scale, and it has been generally used and accepted in that sense, with the qualification of being beyond the reach of a single of number of individuals; and therefore purely a question of governments. Ordinarily the control of the operations of industry is granted to the person who supplies the whole or greatest part of the funds by which they are carried on, and such is generally the party most directly interested in the result. Commerce, therefore, whatever may have been the conditions of its initiative, has invariably necessitated either government restrictions or ultimate control.

We have shown why many of the foreign nations assumed control of commerce, owing to limited resources. The United States has evidently neglected it, owing to an unlimited supply.

It is rather more prudent to believe that those resources have a greater significance, that they are not paramount to commerce, but that they are inseparably connected, and have been from their inception. The most inexhaustive evidence is available to demonstrate that any material increase in the national prosperity shall follow trade extension, and still greater and indisputable evidence of the means of doing so. The immutable laws of progress determined the question of commerce hundreds of years before Columbus sailed the seas. Every condition of nations since has worshiped at its shrine. This fact steps into prominence at every point in the discussion of the subject of a merchant marine, and dims the glory of American industrial supremacy.

SHIPPING TO AND FROM BRAZIL

European Versus American Service—Bad Effect on American Trade.

The following report, showing how American trade with Brazil and South America in general is handicapped by inadequate shipping service, is furnished by Consul-General George E. Anderson, of Rio de Janeiro.

"As the result of more or less aid from the Governments concerned, within the past three years there has been developed between the east coast of South America and the several countries of Europe, notably Great Britain, Germany, France and Italy, a service of fast modern ships, the least of them of 14 knots speed, which has come to be a prominent factor in the foreign commerce of that coast with the rest of the world. The number of such ships entering and clearing from the port of Rio de Janeiro from and to Europe has doubled in the past three years, so that there is now, on an average, about twenty ships of such speed, and an average gross tonnage of about 6,600 tons each per month in either direction, affording mail connections between Rio de Janeiro and European points about sixteen times a month, in twelve to fifteen day voyages, compared with two 12-knot ships per month, with an average gross tonnage of about 5,200 tons each, between New York and Rio de Janeiro, sailing on an eighteen and a half day schedule. By reason of such communication Europe and eastern South America are becoming more and more closely related, while American trade is suffering.

"This state of things exists in spite of the fact that exports and imports between Brazil and the United States annually average twenty per cent more than between Brazil and any other nation, the volume of actual freight from Brazil to the United States being almost, if not quite, as great as that from Brazil to all other countries.

Improvement in the European Service

"In 1906 certain German shipping companies, more or less concerned at that time in the shipping service between Europe and the ports of South America, especially the ports upon the eastern coast, commenced, under the stimulus of government aid, the development of an improved service of large, fast, modern ships to take the place of the small, slow, old vessels which were serving the trade at that time. This innovation was followed and, in some respects, immediately exceeded by English and other competitors, with the result that within the past three and a half years there has been the development of a modern, fast, comfortable, and well equipped passenger, mail and express service between the several countries of Europe and Brazil and Argentina, which is one of the most significant developments in modern shipping anywhere. This has been the dominant characteristic of the trade situation between the United States and Brazil and Argentina, on the one hand, and between Europe and Brazil and Argentina on the other hand. During this time there has been some improvement in the service of foreign ships between the United States and the eastern coast of South America, but the service is still slow and inadequate.

"The improvement in the European service has been in the number of ships carrying passengers, in the size of such ships, in their speed, their equipment, and in the regularity of their schedules. Most of such improvement has come directly as the result of stimulation of ship-building and maintenance by subsidies paid by the several governments to ships carrying their flags in this trade.

Importance of Shipping Record at Rio

"The entire shipping service between the United States and the eastern coast of South America, and Europe and such coast, respectively, is indicated by the returns of such shipping at the port of Rio de Janeiro, practically all of the better class ships calling at this port on their voyage to or from the United States or to or from Europe, the figures of this port thus measuring, in a practical way, the service between Europe and the River Plate and the United States and the River Plate.

"In a general way there has been comparatively little change during the past year in the amount of shipping passing between Brazil and Europe and between Brazil and the United States, as the case may be. The actual amount of shipping is determined by the actual amount of freight offered. The profit in shipping on any route is so narrow that all routes of possible profit are filled by tramp vessels just as soon as freight may be offered. But the character of the service thus afforded is a matter of great variance and also of great moment. In 1908 there entered in all the ports of Brazil, including repeated voyages of the same ship and repeated entries in each port, a total of 5,474 ships on over-sea voyages, with a total tonnage of 12,362,480, as compared with 5,415 ships and 11,168,324 tons in 1907, an increase of about 1 per cent in the number of ships and of about 10 per cent in tonnage, and an increase in the size of ships which is self-apparent. Of the entries in 1908, 2,199 ships, with a tonnage of 6,124,347 (net), were English, as compared with 2,172 ships, with 5,537,354 tons, in 1907; Germany comes second, with 920 ships and 2,536,032 tons, compared with 901 ships and 2,323,166 tons in 1907; Brazil next, with 556 ships and 473,552 tons, as compared with 553 ships and 498,732 tons in 1907; France, with 404 ships and 1,017,848 tons, compared with 395 ships and 939,430 tons in 1907; then Argentina, with 349 ships, Italy with 344 ships, Austria-Hungary with 148 ships, Norway 126, Holland 77, and others, leaving 10 ships, with 7,356 tons,

for the United States, compared with 13 ships, with 12,972 tons, in 1907. The American vessels listed were 2 government mine planters in two ports, 1 vessel in Rio de Janeiro in distress, 3 ships with cargo, and 1 yacht in three ports. The ships with cargoes were sailing ships.

Shipping Service to Europe and the United States

"While these general figures as to shipping serving Brazil show an almost complete absence of American shipping in South American waters, they offer nothing out of the ordinary. There are other features of the situation, however, which merit careful consideration on other grounds than mere pride in the presence of the American flag on American ships in waters of countries with which the United States trades. Chief of these is the fact that the lack of American shipping in Brazilian and South American waters reflects a general lack of proper steamship service of American or any other nationality to handle American commerce as it should be handled and properly serve American trade, while the presence of other flags, and particularly of other flags on fast modern ships, indicates in a convincing way the special efforts of other nations to foster their own export and import trade. This fact appears graphically from an examination of the detailed figures of shipping serving Europe and the eastern coast of South America and of that serving the United States and the same coast of which the figures for the port of Rio de Janeiro may be taken as the most convenient and the most significant, both as to Brazil and the River Plate points.

"In 1908 there arrived in the port of Rio de Janeiro from all over-sea ports a total of 1,270 vessels. Of these, 119 came from the United States and 720 from Europe, the rest coming from ports in other parts of the world. There departed from Rio de Janeiro for all ports a total of 1,182 vessels, of which 208 went to the United States and 443 to Europe. In view of the fact that the United States last year took a little over 40 per cent of the total exports of Brazil, the comparative number of ships is reasonably proportional. In the matter of tonnage and speed, however, the United States is almost altogether without the service that this proportion of Brazil's trade would justify.

The Latest Figures Make a Worse Showing

"Taking the latest figures available, those for the half year ending June 30, 1909, the light half of the year in Brazil's trade, and the returns show that the total number of over-sea ships entered at Rio de Janeiro coming from European ports was 350, with an aggregate gross registered tonnage of 1,630,488, as compared with 355 ships aggregating a gross registered tonnage of 2,094,500 in the same period of 1908. The number of steamships sailing from Rio de Janeiro for European ports in the same period was 243, with a total gross tonnage of 1,232,894, as compared with 217 ships with 1,193,500 gross tonnage in the same half of 1908. The total number of steamships entering Rio de Janeiro from all American ports in the first 6 months of 1909 was 53, with a total gross tonnage of 180,843, or an average of 3,413 tons per ship, as compared with 54 ships with a gross tonnage of 122,217, or an average gross tonnage of 3,583 tons in the same period of 1908. Of these vessels Great Britain furnished 36, Germany 7, Brazil 4, others 7, the United States none. There sailed from Rio de Janeiro for all American ports in the first half of 1909 a total of 60 steam vessels, with a gross tonnage of 217,593, or an average tonnage of 3,626, as compared with 73 vessels with a gross tonnage of 249,967, or an average tonnage of 3,410 in the same period of 1908. Of these Great Britain this

year furnished 39, Germany 9, Brazil 3, others 9, the United States none.

These ships, except in the case of one line operating two ships per month in either direction, are practically without schedule, although two other lines attempt to make and keep schedules. The number of ships leaving Rio de Janeiro for the United States on a regular schedule was 9, with a total tonnage of 44,034, an average gross tonnage of 4,890, and the number coming from the United States in the same period was 11, with a gross tonnage of 62,819, or an average tonnage of 5,711. Nevertheless it was in such vessels that the only notable improvement in the service between the two countries was had. During the 6 months the line which is maintaining a regular service between New York and Rio de Janeiro put into commission a new steamer of about 11,000 tons gross which, though slow, offers modern passenger accommodations. A similar ship was put into service during the same period of 1908. These two ships are the only ships in service between the United States and Brazil in which modern passenger accommodations can be had. Both are comfortable but slow. Only one of these ships per month serves between the United States and the River Plate.

The Three-Cornered Voyage Detrimental to the United States

The discrepancy between the amount of tonnage and number of ships going from Brazil to the United States, as compared with the total number of those coming from the United States to Brazil, illustrates the character of the service. Cargo ships from Europe to Brazil are still accustomed to make the trip out with European goods, carry Brazilian coffee or rubber or proceed in ballast to the United States, and then carry American cargoes to Europe. The larger number of these ships are what are known as tramps. They offer abundant slow freight service, but can not be taken as in any way stimulating communications or trade.

The service to Europe is in notable contrast with this slow and irregular service once a month between the United States and the eastern coast of South America. The ships clearing from Rio de Janeiro for Europe during the first 6 months of 1909 were 243 in number, with a total gross tonnage of 1,630,488, of which 132, with a total gross tonnage of 878,693, or an average gross tonnage of 6,656 tons per ship, are reported as having a speed of 14 knots or over per hour; some of them actually sailing on schedules calling for more than 16 knots. In the same period of 1908 there were only 110 of such ships, with a tonnage of 717,375, or an average gross tonnage of 6,521. There arrived in Rio de Janeiro from Europe, in the same period of 1909, 116 ships of a total gross tonnage of 761,202, and an average tonnage of 6,562, as compared with 77 ships, with a total gross tonnage of 495,337, averaging 6,433 in gross tonnage, and with the same speed, in the same period of 1908. During this period, in 1908 and 1909, not a single merchant ship of similar speed, American or other, entered or cleared from Rio de Janeiro from or to an American port. Not a single ship of this class passed from or to the United States to or from a port on this side of the South American continent, Europe in that period of 1909 having an average of 4.5 vessels of that speed and average tonnage a week to Rio de Janeiro, and an average of a vessel of that speed and average tonnage 5 times a week from Rio de Janeiro, and, in a general way, from the River Plate.

European Fast Steamship Service

"This improved service is due almost altogether to government action, direct or indirect subsidy, or mail sub-

vention from the governments whose flags are flown. The aid given British interests on the South American run is in contracts for carrying mails, but these companies are the most independent of those giving service. In their new service of fine ships they have been followed by newer and even better German steamers as well as by the steamships of Italy, France, Holland, and Austria, until now Italian ships are making the trip from Rio de Janeiro to Genoa in 12 days. German ships are making the trip from Rio de Janeiro to Southampton in 14 days, and French and English steamers regularly make the trip to their respective ports in similar periods. With vessels of the same speed as those serving Europe and Brazil, the trip from New York to Rio de Janeiro would be made in considerably less than 2 weeks, including all present stops, instead of the 18½-day schedule now obtaining.

"In the matter of mails the United States at present is practically confined to two ships per month in either direction on an 18½-day schedule. There are, on an average during the year, over 4 ships a week from Europe to Brazil carrying mails by way of Lisbon in an average period of about 13 days, and there are, on an average, over 5 ships a week carrying mail from Rio de Janeiro to Europe in from 12 to 14 days.

"The manner in which this improved service between the east coast of South America and Europe has grown may be summarized in the statement that the number of such modern ships entering Rio de Janeiro in the first 6 months of 1907 was 63, with a gross tonnage of 379,649; in the first half of 1908 the number was 77, with a gross tonnage of 495,337; and in 1909 the number was 116, with a gross tonnage of 761,202, while the number sailing for Europe in the first 6 months of 1909 rose to 132, with a gross tonnage of 878,693. This service has thus grown not only as between Europe and Brazil, but as between Europe and the River Plate ports as well.

What the United States Needs

"This improved service as between the several countries of Europe and the eastern coast of South America is cumulative in its effects. While Great Britain, for example, may have six ships or so a month of this rapid class going from England to Brazil and from Brazil to England, France has about two a month, Italy two or three, Germany three or four, and other European nations various ships. All these ships are at the service of the merchants of each of the countries. By rapid railway connections they can be reached for mail and express service at Lisbon or some other port, and mail to Europe is carried to Lisbon by any one of many ships, and thence forwarded to its destination by rail. The service between the United and Brazil is in fact freight service only. It is, so far as time is concerned, the same sort of service each of these European countries has, and in addition to such freight service is the service of the fast ships noted above. The United States, by reason of its isolated position, has peculiar need of its own shipping service. To place its commercial interests upon the same footing as regards a South American shipping service as the commercial interests of European nations are placed, demands a shipping service not only equal to that of any European nation but to some extent a service equal to that of all maritime European nations.

"That this improved shipping service between Europe and South America is affecting American trade in the countries concerned is becoming more and more evident, though it would be too much to ascribe all the recent changes in American trade in Brazil to changes in shipping service alone. There are many lines of freight in

which a rapid and modern service of ships is not necessary. By reason of superior shipping methods some American concerns can ship goods on slow freight steamers and still give more rapid delivery than European competitors. But there are many lines of trade in which prompt service, equipped with cold storage and similar appliances, is absolutely necessary. In the way of exports of fruits and perishable food products, for example, the United States has been unable to secure the trade which would be immediately available for it with improved and more rapid service. American fruit often comes to Brazil by way of Europe. Some American apples have been shipped across the Tropics without ice, so strong has been the demand for them, though the loss en route was enormous.

Lack of Proper Mail Facilities

"Under present conditions it is still impossible to give a mail order from Brazil to a manufacturer in the United States and expect goods short of 3 months with prompt service on the part of the shipper, while it is constantly the experience of business men in Brazil that they can place an order by mail in England, France, or Germany and have the goods in two-thirds of that time. From 7 to 8 weeks, starting twice a month, is the least possible time for a round-trip letter to and from the United States at present, while round-trip letters to and from English, French, German, and other European ports can not only be had in less than 5 weeks, but they can be had in that period almost any time of the month.

"The manner in which the fast and comfortable ships between South America and Europe maintain the traditional social and intellectual sympathy between South America and Europe is a matter of very practical business importance. With such communication there is a sympathy with European ideas and ideals generally; there is a copying of European social and other habits and customs; an acquaintance with European trade methods; in short, South America is a reflection of European civilization, European tastes and styles and European goods follow as a matter of course. In spite of certain preferential favors in aid of the United States, the imports of Brazil from the United States in 1908 showed a loss of over 16 per cent, compared with those of 1907, while the average loss for all nations was 12 per cent. The loss of Germany was about 12 per cent, that of Great Britain was about 14 per cent; others showed still better records. There is no mathematical demonstration that an effective steamship service would have enabled the United States to avoid such trade results altogether, but there is enough definite trade in sight to have made up much of the difference. Indirect and future trade results of a better service would have been unquestioned.

Not Due to a Lack of Trade

"The present lack of adequate modern steamship accommodations between the United States and eastern South America is not due to a lack of trade. The total tonnage of actual freight going from Brazil to the United States on an average from year to year comes very close to that going from Brazil to all Europe. The value of the total exports and imports between the United States and Brazil yearly averages more than 20 per cent more than the total exports and imports of Brazil with any other country. Even the exports of the United States to Brazil, while less in amount than those of Great Britain and Germany, and far less than they ought to be, exceed those of any other country than the two named, though five other countries maintain their own lines of ships to Brazil. While the passenger traffic between Brazil and Europe is large, especially in immigrant or third-class travel in both directions, the passenger traffic between the United States

and South America is also growing large, and would grow much larger if more high-grade ships were in service. A large percentage of the present traffic between the United States and South American ports is by way of Europe because of the nature of the passenger accommodations offered on the direct route by all except two ships.

"Reasons for the rapidly and constantly increasing betterment of European connections with South America must be found outside of present or prospective conditions. In fact there is no other explanation to be had than the growing need of and anxiety for South American trade experienced by European business interests.

"In spite of the fact that each country in Europe can take advantage of the vessels of every other European country in the trade with South America, as the United States does of the English and German vessels serving the trade between the United States and Brazil and the River Plate, each of the principal trading nations of Europe has found it to its advantage and profit to maintain, by subsidies and mail subventions, a line of its own. Services aided by government subsidies or mail contracts are now maintained on one or more routes between Europe and South American ports by Great Britain, Germany, Holland, France, Italy, and Austria-Hungary, with modern vessels. Japan is aiding a service between Brazil and Asia, and Portugal is reported as making arrangements to establish a subsidized service with Brazil.

"Some of the figures given were obtained from the local agents of the lines concerned, but they are believed to be substantially correct, and they are certainly correct with respect to the general features of the situation."

THE MERCHANTS' EXCHANGE OF OAKLAND, CAL., PLACES ITSELF ON RECORD IN BEHALF OF A MERCHANT MARINE

We take pleasure in publishing the following communication from The Merchants' Exchange of Oakland, Cal.:

Oakland, California, November 4th, 1909.

Editor Pacific Merchant Marine:

Dear Sir—At a meeting of the Merchants' Exchange of Oakland, California, held November 2nd, 1909, the following was unanimously adopted:

WHEREAS, The development of the American Merchant Marine is one of the most important questions now before the American people; therefore,

RESOLVED, By the Merchants' Exchange of Oakland, that the Senators and Representatives from the Pacific Coast are urged to use all honorable methods to secure such legislation as will enable American shipowners to compete on equal terms with the shipowners of other nations.

Truly yours,

(Seal) E. A. YOUNG, President.

The spirit that prompted this action by The Merchants' Exchange of Oakland will appear as an echo of Oakland's efforts for recognition as a typical American city, the consummate achievement of which is made manifest by signs not to be mistaken. The numerous industries, modern improvements and picturesque homes of Oakland is a noteworthy endorsement of the progressive spirit of its citizens.

Consul Clarence A. Miller, of Matamoros, reports from a newspaper article concerning the henequen industry in Tamaulipas, Mexico, from which it appears it was only a few years ago it became known that the plant could be grown in that part of Mexico, and that the development of the industry in the State is principally due to American investors. An American twine manufacturer, having recently purchased 30,000 acres of land northwest of Tampico, partly for the purpose of raising fiber for his own use.

On the Ground Floor

All government contracts of Columbia, with regard to sales, construction works, repairs, printing, transports, and, in general, with regard to all kinds of services which are an expense to the treasury, shall be carried out by public competitive bids. Contracts for the rent and transfer of public lands and property shall also be made by competitive bids.

The annual report of the Canadian Pacific Railway for the year ended June 30, 1909, presented at the annual meeting on October 6, has an interesting statement in regard to their treatment and subsequent sale of desert areas. The directors set apart about 995,000 acres, called the "western block," of which 353,000 are irrigable and over which canals and ditches have been dug. Of this land, 69,963 acres have been sold at an average price of \$24.71 per acre. The remaining sales of land, amounting for the year to about 300,000 acres, brought only an average of \$10.96 per acre. The experiment has been so successful in opening up a very large body of land which would be otherwise unproductive of traffic that the directors are considering the advisability of extending the irrigation system to another block of about 1,000,000 acres.

The Russian Department of Domain has decided to appoint an agent in the United States for the purpose of studying American methods of agriculture, in order to introduce them, when practicable, in Russia. The agent is to make a particular study of field work and machinery. Mr. Kristifovich, who has been working along these lines in California for the past twelve years, is spoken of as the possible agent.

Regarding the new French instrument called the "acoustele," for locating streams of water underground, it appears from the Bulletin of the Belgian Society of Geology, Paleontology and Hydrology that that society has made much more extensive and thorough experiments with this instrument than have thus far been made in France. The Bulletin is an official scientific publication, and the data therein contained can therefore be accepted as impartial and trustworthy testimony.

From the best information that can be obtained the acoustele has proved quite successful in certain kinds of ground, a chalky, calcareous formation being found most favorable for its use. The conditions which are most essential to its success seem to be the existence of subterranean veins or channels of water, flowing with sufficient velocity to create a rumbling or gurgling sound by their flow or fall, and a sounding geological formation of a resonant character capable of transmitting the sound thus created to the surface of the ground, where it is detected by the delicate auditory receptivity of the instrument. The price of the instrument is \$18.35.

The Minister of the Navy of Chile has been authorized to advertise for bids for the construction of a dry dock at Talcahuano large enough to accommodate war vessels of from 18,000 to 20,000 tons. It is estimated it will cost about \$2,800,000.

A Seattle syndicate, including a San Francisco millionaire, has purchased for \$1,000,000 the controlling interest in 21,000 acres of timber and coal lands on Graham Island, Vancouver, B. C. Engineers are on the ground surveying for a 17-mile railway to convey logs and coal to deep water, where the mills are to be located. There are said to be 470,000,000 feet of high-class timber on the property.

United States Consul J. E. Rowen, sent to the business men at Punta Arenas, Chile, a circular letter with the following questions:

(1) What percentage of your trade is with the United States of America? (2) What objections have you to trade with the United States of America? (3) What suggestions could you offer to improve trade with the United States of America?

The aggregate answers to the first question reveal the fact that, while the trade of Punta Arenas has increased 50 per cent in the past 15 years, the United States exporting houses have only 5 per cent of the trade of the ten leading importing houses of Punta Arenas; 75 per cent of the remainder is with England, France and Germany.

The answers to the second question are varied, but may be considered under the following heads: (1) Lack of good facilities for transportation. (2) Higher proportional freight compared with Europe. (3) Lack of interest of American exporting houses, making a strong contrast with the persistent efforts of European houses. (4) American exporting houses forwarding goods which do not meet the requirements of the trade here, and which do not answer to the description in catalogues. (5) Not giving reasonable credits, American credits being out of all comparison with those of European houses.

I will give a few concrete illustrations of the above. One of the leading importing houses of Punta Arenas gave to a leading boot and shoe house of the United States a large order, with special requirements as to the height of instep and width of toe. The order was filled with no attention to the requirements, and the goods remained in the possession of the firm largely unsold. As to the lack of interest on the part of American exporters, the head of one of the leading firms of Punta Arenas informed this office that their firm had seen only two American commercial travelers in 15 years.

European firms give 3, 5 and 6 months' credit. Some European firms accept an order with the understanding that 50 per cent of the payment is to be made in 3 months and the balance in 6 months. One of the best importing firms in Punta Arenas, a firm giving the United States one-tenth of its trade, informed this office that American exporters seem to show little interest in Punta Arenas trade, and they felt repelled by their attitude. A large importing firm of Punta Arenas made the suggestion that American exporting houses should send to Punta Arenas special agents to study trade conditions here. The latter suggestion has been made by several Punta Arenas houses and is sound advice.

Chile offers a splendid market for American coal.

DISCUSSION OF A PROPOSED METHOD TO REHABILITATE THE AMERICAN MERCHANT MARINE

(Continued from Page 6)

named for the reason that they are entirely eliminated, may be summed up in the following: No interference with the treaties existing between the United States and thirty odd foreign nations. The United States is now, and reasonably, should always remain on the defensive side of these treaties. With the commission will rest the duty of procuring minute data regarding all branches of the merchant marine subject, upon which depends the success of any measure that will be finally adopted. Branch offices of a foreign commerce commission should be established in the main shipping ports, and the Insular Possessions of the United States, for the rapid and effective concentration of all matters pertaining to the upbuilding of the foreign trade. The commission would thus be enabled to meet local grievances and adjust them in the best interest of the Government and consistent with prospective results arising from natural advantages or numerous other possible conditions.

The questions of interest on the Government money invested, depreciation in value of vessels, insurance, price charged to the party chartering the vessel, and regulations for carrying the United States mail, as placed against the advantages gained in the acquisition of a naval auxiliary fleet, expansion of American trade, facilitating the delivery of the United States mail, naval reserve, the protection that the shipbuilding industry is entitled to, the training of American seamen, and incentive to engage in the science of shipbuilding, are questions that are involved in every phase of the merchant marine subject. In the first few mentioned questions, as will be observed, are those that will determine the merit and demerits of the present suggestion, and upon which rests the means of offsetting the assistance rendered by foreign governments to their merchant marine.

We assume to envelop the foregoing suggestion in the cloak of our sincerity on the subject of an American merchant marine.

Consul Isaac A. Manning of La Guaira sends the information that the Minister of Foreign Relations has been requested by the head of the Department of Public Works in Venezuela to direct the Venezuelan Minister to Great Britain to employ a mining expert, who shall be designated as Mining Engineer and Inspector of Venezuela.

An American consular officer in Latin America reports that two gentlemen have received a concession from the local government to do certain work in connection with the plan of excavating and enlarging a harbor in that region. Experts are now on the ground making the plans for the contemplated improvements, and it would be well for American firms to get in touch with the parties in charge of the matter. (Address Bureau of Manufactures, Washington, D. C.)

The consumption of fruit in Germany is rapidly increasing, the item of prunes having nearly doubled in the past year, and principally imported from France, Servia and Austro-Hungary. In 1908 American apples were imported into Germany to the amount of 31,604 double centners (double centner=220 pounds), while in 1909 such imports amounted to only 7,962 double centners.

PACIFIC COAST PORT NOTES

San Francisco

New Port of Mattole to Be Improved—Shipping men of San Francisco are evincing a great deal of interest in the newest port on the coast of California, Mattole, in Mendocino County. The improvement of this port will open up very rich territory for the San Francisco markets, and subsequently Congress will be asked to improve the harbor. Insurance companies have recognized Mattole as far as accepting risks is concerned, which means that it is a safe, storm-protected harbor in winter.

Harbor Commissioners Preparing for Western Pacific—The Associated Contracting Company has secured a contract from the State Board of Harbor Commissioners for demolishing Mission Street wharf No. 1. The contract was let on a bid of \$1947. The space occupied by the wharf will be utilized for two passenger ferry slips for the Western Pacific ferry boats.

Congress Will Likely Appropriate Large Sum for the Improvement of California Rivers—Representative D. E. McKinlay of California has the assurance of all the members of the Rivers and Harbors Committee of Congress that at the December session \$400,000 will be appropriated for the improvement of the rivers of California. If Congress grants this sum the State Legislature has pledged itself for a similar amount, thereby making \$800,000 available for the improvements.

Two Well Known Barks Change Hands—Two well known barks on the Pacific Coast, one a British and the other an American, have recently changed hands. The British bark Socotra has been sold to Norwegians for \$16,500. She was built in 1891 by Russel & Co. of Glasgow, and owned by P. Denniston & Company of the same port. The Socotra is a vessel of 1,597 net tons, with No. 1 survey passed. She carries 2,745 tons dead weight on a draft of 20 feet 8 inches.

The other was the American bark Emily F. Whitney, formerly the British ship Emily F. Whitney, and it was purchased for \$7,500 by Madison & Bonner of San Francisco. The Whitney is a vessel of 1,207 net tons, and was built at Boston, Mass., in 1880.

Schooner Advent Awarded Heavy Damages for Injuries Received in Collision—United States Commissioner Krull has estimated the damage received by the schooner Advent, owned by the Simpson Lumber Company when in collision with the Oceanic steamer Sonoma several months ago, and found that the schooner suffered to the extent of \$17,235.12. United States District Court Judge De Haven ruled against the defendant company when the case was brought to trial before him, and the matter was turned over to Commissioner Krull to estimate and assess damages.

Matson Company Adds to Sailing Fleet—The Matson Navigation Company has taken over the barkentines Irmgard and S. G. Wilder, owned by F. A. Schaefer & Company, Ltd. The barkentines have been in the sugar and lumber carrying trade between this coast and Hawaii for several years, and, contrary to report, it is the intention of the new owners to continue them in this trade.

Whaler Returns from Successful Trip—Returning after a successful voyage extending over six months, the steam whaler Herman arrived in San Francisco Bay with 5,000 pounds of whale bone, from but two whales, 275 pounds of ivory and a consignment of valuable skins. The Herman left San Francisco on a trading venture, but when the opportunity offered whales were taken.

Won Out on Tariff by Narrow Margin—On an order from Washington, D. C., the custom houses at New York and San Francisco were kept open until 4:30 P. M. on Saturday, October 31, to allow vessels with French wines to enter before the tariff agreement between that country and the United States was terminated. The following day the duty on champagne was raised from \$6 to \$9.60 a case, and all other wines in like proportions.

Six liners and several small boats entered New York Harbor within the time limit, thereby saving to importers something like \$200,000 in duties. One steamer, the Alaskan, entered at San Francisco, but the ship Everett Briggs, with a large quantity of liquor aboard, failed to escape the duty.

Shipping of Oakland Harbor for October—The following is a report of shipping in the harbor of Oakland. The total number of vessels docking in the harbor of Oakland for the month was 336, with a total tonnage of 149,157. Segregated they were as follows: Three hundred and three steamers, 21 schooners, 3 scows, 3 lighters, 2 barks, 2 barkentines and 2 ships. The total increase over the preceding month was twenty-eight in vessels and 32,122 in tonnage, while the total increase over the corresponding month last year amounted to 173 in vessels and 66,057 in tonnage.

Schooner Guide Sold to Southern Corporation—The three masted schooner Guide, which operated in the lumber trade between Tillamook and San Francisco under the management of J. F. Olsen, has been purchased by the Mexican Fertilizer Company of San Diego. The schooner will be used in the guano trade between San Diego and Lower California.

The Guide was built at San Francisco in 1887, is 126 feet in length and has a net tonnage of 137.

New Steamer Line Between Pacific Coast Ports and Antwerp—Henry Lund & Company of San Francisco have announced the establishment of a line of steamers between Antwerp and San Pedro, San Francisco and Portland. The line will be inaugurated in December, and the first steamer to leave Antwerp will be the Augustus. A sixty-day schedule will be maintained until business warrants a more frequent sailing.

Six steamers will be obtained to maintain the schedule, and they will carry general European freight from Antwerp. Lumber, grain and any other Pacific Coast commodities offered will be taken on the return trip.

Seattle

Marine Inspectors Rendered Decision Adverse to Puget Sound Navigation Company—Inspectors acting for the local board in the investigation of the complaint made by L. P. Dow of the Masters, Mates and Pilots, against the Puget Sound Navigation Company, rendered the following decision: "In regard to the complaint filed with this board by Euther P. Dow, national counsel of Masters, Mates and Pilots, dated September 28, 1909, viz., that the steamship Iroquois has been navigated unlawfully, to wit, by not having two licensed mates on board, as required by the certificate of inspection issued to said vessel by the United States local inspectors of steamboats of this district, and thereby violating section 4,463, Revised Statutes of the United States, it is the opinion of this board that the intent and spirit of the law would be violated if any of the mates, as specified by the certificate of inspection, were not duly qualified and licensed officers. Such being our understanding of the law relative to steam vessels coming under the purview of title 52, Revised Statutes of the United States, we are constrained to the decision that the vessel specified in the complaint, the steamer Iroquois, has been navigated unlawfully by not having two duly li-

censed mates on board, as specified and contemplated by the certificate of inspection issued by the United States local board of inspectors. Pursuant to authority vested in this board by section 4,453, Revised Statutes of the United States, you are hereby ordered to correct such violation of the certificate of inspection by placing on board two duly qualified mates."

Supervising Inspector J. C. Berningham of San Francisco, acting upon the appeal of the appellant company, later reversed the decision of the temporary board.

Barge Quatsino Total Loss—The barge Quatsino, which struck on Lincoln Reef, Dixon's Entrance, while in tow of the tug Goliah, is a total loss, and very little can be saved from the wreck. At the time of the accident the light on the reef was out, and it developed later that

Department of Commerce and Labor Ruling Causes Protest—The recent ruling of the Department of Commerce and Labor that in the future there shall be but four ports of entry in the State of Washington for the entrance of aliens to the United States has caused shipping men of Puget Sound to enter a vigorous protest to the Government. The ports named—Blaine, Sumas, Oroville and Marcus, the protestants claim, are out of the way of water traffic from British Columbia ports, and therefore higher rates prevail on these routes than when going to Seattle direct.

Puget Sound Navy Yard Authorities to Ask Congress for Large Appropriation—Rear-Admiral Richard C. Holliday, chief of the Bureau of Yards and Docks, has given his sanction to the building of a new coaling station at the Puget Sound Navy Yard. For this purpose Congress will be asked to appropriate \$600,000. Provisions have been made to construct a foundation with creosoted piles and a new plant to be built of steel.

Seals Are Leaving the Pribilof Islands for the Falkland Group—From data collected by the Government long suspected conditions of the seals' movements are verified, and the conditions are such that within another season sealing operations will shift from the Pribilof Islands to the Falklands, off the east coast of South America.

The sealing schooners in Bering Sea, up until the present time, have made a very poor showing, some having less than 100 skins when the season was half over.

With the decrease of the seals the fleet of schooners will cease to ravage the seas in the vicinity of the Pribilofs, and the United States Government will not be placed to the expense of maintaining a large fleet of cutters in the Bering Sea.

Weir Line to Make Many Improvements—Waterhouse & Company, Puget Sound managers of the Weir line, have announced that, beginning the first of the year, many improvements will be made. One of the new policies of the company will be the inauguration of a passenger service, and a strong effort will be made to secure control of the Chinese steerage trade, now governed by the Blue Funnel line. Wing Chong & Company of Victoria, B. C., where much of the Chinese traffic originates, have been appointed as agents in that city. The new liners, which are to be operated on the Pacific, the Suevic and the Oteric, each of 11,000 tons, have been equipped with modern passenger accommodations, wireless telegraphy and ample capacity for freight.

Ship Canal at Seattle to Be Completed—Excavation work has commenced on the ship canal which will connect Lake Washington with the salt water harbor of Seattle. Lake Washington will be lowered eight feet, which will alleviate the dangers of a winter overflow.

The canal will be 2,000 feet long and 100 feet wide.

Portland.

Survey of Columbia River Is Completed—The survey of the Columbia River, between the mouth of the Willamette and Astoria, carried on by the United States engineers, for the purpose of ascertaining how much it will cost to deepen the river at this point to a thirty-foot level, is completed. It is estimated that two dredges can complete the necessary dredging in six months and Congress will be requested to make an appropriation to cover cost of dredging.

Suit Filed Against French Bark Babin Cheveau—The French bark Babin Cheveau has been libeled by Meyer, Wilson Company for \$6,000. The plaintiff company claims that cargo consigned to them at Portland was damaged to amount sued for by bad storage and salt water.

Federal Officers at Portland to Investigate Duties on Certain Imports—The general appraiser for the Treasury Department and an Assistant Attorney-General were in Portland the latter part of last month, taking testimony at the Custom House, relative to the collection of duties on certain imports.

One of the products coming from Japan to this port in considerable quantity is sulphur, on which the Government insists a tariff should be imposed. The importers take the opposite view, claiming that it is exempt from taxation as it arrives here in its crude state. But this latter point is disputed by Uncle Sam's representatives, who assert that it has gone through a process of refinement.

There is also a difference of opinion concerning whether or not the oak timbers coming here from Japan should be admitted free of duty. The importers hold that they should come under the class of logs, or unmanufactured material, on which no duty is imposed. But the Government classes them as hewn timbers, and therefore subject to taxation. Agate, vases and many other articles are under consideration for determining how much, if any, duty should be collected on them.

The investigators will not make known the results of the testimony, until the Washington authorities are conferred with.

Portland Commission Will Pay Extra Charges on Towing—Following out its plan of encouraging shipping in every way the Port of Portland Commission has decided that it will pay all extra charges, when it is found necessary for ships to hire other than the commission's towboat Ocklahoma. The cost of hiring the Ocklahoma is \$20, but in the case of outside towboats, the rate is \$30 with an additional pilotage charge of \$7.50. It is considered that this plan is cheaper than chartering a boat for that purpose.

The commission had favored the issuance of \$50,000 worth of bonds to cover the first payment on the new tug, building for service at the mouth of the Columbia River.

Tug Edith Bought by Chapman Lumber Company—The tug Edith, formerly owned by the Spokane, Portland and Seattle Railway Company, has been purchased by the Chapman Lumber Company. The tug has been tied up at Vancouver, B. C., since the North Bank Road was completed.

Tug Daniel Kern Raised—The tug Daniel Kern, which was sunk as a result of a collision with the steamer George W. Elder, has been raised, and is now on dry dock at Portland for repairs. The Kern rested in 60 feet of water for over a month, several futile attempts having been made to salvage her.

The tug will be repaired at the expense of the under-

writers, but it is reported that the former owners, the Columbia Contract Company, will take the Kern over upon completion of the repairs.

Steamer Company Incorporated to Operate on Yaquina Bay—The Modern Improvement Company, formed to build and operate pile drivers, steamboats and derricks on Yaquina bay, has been incorporated for \$9,000. The company has possession of one large steamer and will begin construction on another one immediately.

Report Oregon Coal & Navigation Company Purchased by Southern Pacific—A report has been circulated, but not confirmed, that the Southern Pacific railroad has purchased from Goodal & Perkins, of San Francisco, the holdings of the Oregon Coal & Navigation Company. The steamer M. F. Plant, the Libby coal mine and 3,000 acres of land is the property in question.

The price paid is said to be \$300,000.

Eureka

Congress to Be Asked for an Appropriation for Humboldt Bay—That Congress is interested in the possibilities of Humboldt bay is evidenced by the fact that Congressman Englebright has been detailed to investigate and recommend what improvements are necessary. Congress at the last session made an appropriation to carry on a survey of the bar and entrance. This work has been completed and it is expected that, with these results, and the recommendation of Congressman Englebright, an appropriation of several millions will be made to extend and strengthen the present jetties.

The United States Engineers, who recently surveyed the mouth of the Eel River, for the purpose of reporting on the project of digging a ship canal joining the river with Humboldt bay, have reported unfavorably.

Tacoma

Blue Funnel Line Adds Another Steamer to Tacoma Fleet—The Blue Funnel Line has just launched a steamer at New Castle, England, which will be operated between England and the Sound, via the Orient.

The steamer has been named the Protesilaus and it is the largest of the present fleet, being 515 feet long and 32 feet in depth, with a beam of 60 feet. Her cargo capacity is 17,400 tons and her trial spin showed a speed of 14½ knots. Her carrying capacity is some 1,000 tons greater than the other liners of this line.

Osaka Shosen Kaisha Changes Schedule for Sailings from Tacoma—A change in the steaming schedule of the Osaka Shosen Kaisha vessels from this port to the Orient has been announced. The next steamer, Tacoma Maru, will arrive in port about November 1 and leave November 9. She will be followed by the Seattle Maru instead of the Fitzpatrick, as scheduled. The Seattle Maru will steam from Yokohama, November 13, and leaves here on the return about December 10. The Fitzpatrick will leave Yokohama, November 21, and arrive about December 11, steaming for the Orient December 21.

Astoria

Motor Schooner Oshkosh to Be Operated in Coasting Trade—The motor schooner Oshkosh, which was recently completed at Coos bay, will be operated in the Oregon coasting trade under the management of S. Elmore & Company. The schooner is equipped with two 100-horsepower gas engines.

Victoria, B. C.

The Canadian Ship Brodie Castle Posted as Missing at Lloyds—The Canadian ship Brodie Castle, which sailed from Portland on December 4, 1908, loaded with wheat and merchandise for the United Kingdom, has been

posted as missing at Lloyds. In June the ship was placed on the overdue market, and her rate went as high as 92 per cent in August, when she was withdrawn as a total loss.

The Brodiek Castle, owned by the Ship Brodiek Castle Company, Ltd., of Victoria, was of 1820 tons, and was built in 1875 at Glasgow. Hind Ralph & Company of San Francisco held the majority of the stock.

Railroad Company Given Subsidy for Establishing Steamship Service—The Grand Trunk Pacific Railroad Company has entered into a contract with the Canadian government for the establishment of a steamship service between Prince Rupert and Queen Charlotte islands and northern British Columbia ports. The line will be subsidized at the rate of \$200 a trip.

Vancouver, B. C.

Canadian Sealers Claim Damages for Illegal Interference—The owners of the Canadian sealing schooners, Jessie, Pescawha and Thomas Bayard, have prepared a claim to be submitted to Washington, D. C., asking compensation for the interference of the United States revenue cutter Bear, which compelled them to abandon the greater part of the otter hunting season. Otter hunting, it is claimed, is not referred to in the sealing regulations, and therefore, interference was illegal.

Advices from Japan state that a claim against Russia for \$18,500 has been prepared by the Tokyo government on behalf of the owners of the schooner Miye Maru for her seizure off the Copper islands last year.

Season's Whale Catch Normal—The whaling stations at Sechart and Kyuquot on the west coast of Vancouver island, which will soon close down for the winter, have taken a total of 647 whales this season. Sechart took 338 and Kyuquot 309.

During the month of September 99 vessels, of 5,349 tons gross (of which 8 of 927 tons were steel steamers) were built in the United States and officially numbered. During the quarter ending September 30, 347 vessels of 48,914 tons gross (of which 25 of 35,860 tons were steel steamers) were built in the United States, the output of the various districts being as follows: Atlantic and Gulf, 164 vessels of 25,551 tons gross (including 14 steel steamers of 18,363 tons); Porto Rico, 4 of 25 tons; Pacific, 72 of 3,345 tons (including 1 steel steamer of 67 tons); Great Lakes, 56 of 18,429 tons (including 8 steel steamers of 103 tons). During the quarter ended September 30, 1908, the total output was 319 vessels of 20,887 tons gross (including 13 steel steamers), or an increase for the last quarter of 28,027 tons, and in steel steamers of 27,952 tons.

The International Congress of Maritime Law, now in session at Brussels, Germany, has adopted the provisions of the proposed international convention relating to collisions and salvage at sea. One of the clauses provides for the recovery of salvage upon human life as well as upon cargo.

In all her years of travel the Oceanic liner Alameda has been behind schedule but once—on her last trip, when she hove to for eight hours to ride out a terrific hurricane.

Contrary to report the Simpson Lumber Co. has not sold their steam schooner Redondo to the Caspar Lumber Co. of California.

Since January Puget Sound has shipped 30,000,000 feet of lumber to the Canal Zone.

SHIPBUILDING NOTES

Union Iron Works

Launch James Gillett, Jr., was at works for repairs to hull.

Contract on the ferry San Pablo, for renewing parts of paddle wheels, raising main engines 12 inches and rebuilding both sponsons completed.

S. S. Aztec has left works, after receiving engine, boiler and hull repairs.

Contract for engine, boiler and hull repairs on the S. S. Enterprise completed.

S. S. Coronado on floating dock for cleaning and painting and engine and hull repairs.

S. S. Santa Rosa at works to have two cast iron propeller blades fitted to wheel.

S. S. Virginia was dry docked for painting.

Contract completed on U. S. R. C. Golden Gate for dry docking, painting and renewing zincs.

S. S. Roma received hull repairs on insurance and shaft work.

Four manganese bronze propeller blades are being turned out for the steamer Stanley Dollar.

S. S. George W. Loomis received engine, boiler and hull repairs and dry docking.

British steamer Dakota at works for general repairs to engine, boiler and hull.

S. S. Pennsylvania dry docked for engine, boiler and hull repairs.

S. S. Siberia was on Hunter's Point dry dock for engine, boiler and hull repairs.

Norwegian steamer Eir, which struck and damaged hull at Mendocino, was placed on Hunter's Point dry dock for repairs.

Steamers Curacao and Santa Maria received engine, boiler and hull repairs and have left the works.

Schooner John D. Spreckles was dry docked for painting.

Oil barge Contra Costa is receiving general hull and machinery repairs, including the changing of propellers.

Steam schooner Wasp receiving general overhauling.

The steamer Catania, which struck at the entrance of the harbor recently, has been placed on Hunter's Point dry dock to have ten plates renewed.

Schultze, Robertson & Schultze

The contract was signed on November 3d with the California Transportation Co. for their new River steamer. The keel of the new boat will be laid in about three weeks. The Eureka Boiler Works has secured the boiler work, and C. H. Evans the machinery. The steamer will cost about \$130,000.

The steamer Isleton, which was burned to the water's edge up the river recently, and which was taken to Schultze, Robertson & Schultze yard for repairs, will be launched within three weeks. The repairs cost \$35,000.

The barge Illinois of the Sacramento Transportation Company is to be repaired at the cost of \$10,000. The barge will be renewed from the bottom up.

H. Anderson

Government launch Alcatraz being caulked, fitted with new iron bark keel on bottom and other repairs.

The launch Telephone of the American Fish and Oyster Company to be rebuilt. A 30-horsepower Imperial gas engine will be installed.

Work will commence shortly on a towing launch for the American Dredging Company. The launch will be named Pirate, and will take the place of the Pirate which was burned a few months ago. The launch is of the following dimensions: Length, 52.5; beam, 15.6; draft, 5.9.

A speed of $11\frac{1}{4}$ miles an hour is expected, with a 125-horsepower Atlas taken from the old boat.

Secured the contract to lengthen the North Alaska Salmon Company's schooner Expansion. It will be lengthened 25 feet and another mast added, making it a three-masted schooner.

Yachts Alturas, Ripple, Chispa and Flirt are to be hauled up for the winter.

William Cryer

Work commenced on two twin-screw gasoline launches for the North Alaska Salmon Company. The dimensions are: Length, 52 feet; beam molded 12 feet 6 inches; draft molded 5 feet 6 inches. The launch will be used for towing purposes in Alaska.

William S. Brusstar & Son

Ship Standard of the North Alaska Salmon Company's fleet on Oakland Creek ways for caulking and general overhauling.

The schooner Wilson also of the North Alaska Company's fleet is on the ways for a general overhauling.

New Steamer for the San Francisco and Portland Steamship Company—One of the two steamers building for the San Francisco and Portland Steamship Company was launched at Newport News the latter part of last month.

The steamers will be completely equipped for the passenger trade and both will be of the following dimensions: Length, 380 feet; beam, 47 feet, and draft, 30 feet from the hurricane deck. Oil fuel will be used. Both vessels are expected to make fifteen and a half knots.

The Bear, the first launched, will be completed by January 15th, and the Beaver, now building, will be ready some time in February.

Osaka Shoshen Kaisha Launch Another Steamer—The third liner of the Osaka Shoshen Kaisha, the Chicago Maru, was launched last month. The steamer will start for Tacoma along in February, when a better schedule will be inaugurated. The next steamer to be launched will be the Panama Maru, which will be ready in March. The service will be further improved until a fortnight schedule is maintained by six steamers.

Plans to Be Made for Tacoma Fireboat—F. A. Ballin, a Portland marine architect and engineer, has been selected by the Tacoma City Council to design the fireboat for that city. Bids will be called for on the fireboat some time in December. It will have a steel hull and cost \$135,000.

Alaska Steamship Company to Build New Steamers—Following the action of the Alaska Steamship Company in getting rid of two of its old steamers comes the announcement of plans to rehabilitate the fleet. Nothing is known of the plans now under consideration except that the steamers will be built for the Alaskan trade.

The steamers of this company have been steadily reduced by sale or accident since the early part of last year. At that time the steamer Saratoga was wrecked, and but recently the steamer Ohio sank on the British Columbia coast. The Pennsylvania and Santa Clara were sold, the former to the Pacific Mail and the latter to the North Pacific Steamship Company.

Construction of Another Vessel for the McCormick Company Not Decided as Yet—No definite action has been taken by the McCormick Company toward completing negotiations for the construction of another steam schooner at Eureka. The matter rested on whether the steamers Cascade and Shoshone, owned by the McCormick people, were disposed of, and, as the steamers still remain in their

possession no decisive action is looked for within the next two weeks. If the steamer is built at all it will be constructed at the Bendixen yards in Eureka.

Several Shipbuilding Concerns of Old World Will Establish in British Columbia—Growing out of the pronounced policy of Canada in building a Canadian navy several shipbuilding firms have signified their intention of establishing a branch on the Pacific Coast. John Brown & Company of Clydebank, Vickers Sons and Maxim Fairfield S. & E. Co. and Harland & Wolff of Belfast, are investigating conditions prior to deciding on location. The last named firm, Harland and Maxim of Belfast, are probably the largest shipbuilders in the world and their yards employ steadily about 14,000 men.

IMPORTS AND EXPORTS OF THE UNITED STATES IN THE MONTH OF SEPTEMBER, 1909, AND NINE MONTHS ENDING SEPTEMBER, 1909

The statement of exports and imports issued by the Bureau of Statistics of the Department of Commerce and Labor presents figures for the one month and the eight months ended September 30, 1909, compared with like period in 1908. The September imports were \$120,941,642, an increase of \$22,513,658 over the imports of September, 1908; exports \$153,890,409, an increase of \$14,563,204 compared with September, 1908. The excess of exports above the imports for the month was \$32,948,767. For the nine months ended with September, the imports were \$1,068,518,977, and the exports \$1,160,811,859, showing an excess of exports above the imports of \$92,292,882; the exports for the nine months of 1908 exceeded the exports for the same period of 1909 to the amount of \$69,955,490; the imports for the nine months of 1909 exceeded the imports for the same period of 1908 to the amount of \$270,020,809; comparing the totals of the two periods, there is an excess of imports in 1909 amounting to \$339,972,299.

S. F. & P. S. S. KANSAS CITY

The subject of our frontispiece this issue is the steamer Kansas City, recently purchased and brought to this coast by the San Francisco and Portland Steamship Company.

The Kansas City was built at Chester, Pa., in 1889, by the Savannah Steamship Company, which concern operated her in the freight and passenger trade between New York and Savannah practically during her entire career. She has fine passenger accommodations. Early last spring the steamer was purchased by the San Francisco & Portland Steamship Company, while she was lying at New York.

The Kansas City left New York for Portland May 19, calling at Newport News for coal. She cleared from the latter port May 25, and on July 16 arrived at San Francisco. While in the Bay City she was given a general overhauling. Her passenger accommodations were enlarged and many minor alterations made. She can accommodate 200 cabin and 230 steerage passengers, a few more than the Rose City. She is of about the same size as the latter craft.

The steamer is of 3,679 tons gross register, is 335 feet in length, 45 feet beam and 20 feet 6 inches depth.

Up until the advent of the Kansas City the Rose City was the most popular steamer on the Columbia River route, but with the new steamer's fine appointments and general fitness for the traveling public it soon rivaled the old boat.

CHARTER MARKET

Within the last two weeks inquiries have been made for spot ships, and shortly after the British ship Neotsfield, which has been lying in Portland harbor for over a year, was chartered to load a full cargo of barley.

Spot ships have been a drug on the market for more than a year. Exporters failed to see the rates demanded and secured outside tonnage. With the exception of two vessels on the Sound, recently taken for outward cargo, there has not been any chartering for immediate loading. Rates of the disengaged craft have been held at union rates, and exporters could do better with steam and bounty carriers.

Wheat has moved very slow on Puget Sound shipping centers, but from the beginning of November the warehouses have been overwhelmed. The slow movement prior to November was due to the warehouse companies holding their wheat until the new rate, recently established by the State Railway Commission, went into effect. This rate saves the shippers about \$300,000, as a reduction of 12½ per cent was made.

Wheat cargoes sent from Portland have all been cleared at less than \$1 a bushel, with the exception of two. These two were despatched in sailing vessels, and were exceedingly small cargoes. Many of the cargoes cleared are estimated to be worth at least \$1.02½ a bushel.

Under existing conditions, i. e., the exceptionally light wheat crop of Russia, the price of wheat at European ports is unreasonably low, and the outlook for the charter of idle sailing vessels on the Sound is anything but bright.

Of the 21 vessels in port at Portland suitable for grain loading, nine are on the disengaged list. The entire fleet represents 43,143 tons, as against 62,713 tons en route and listed for Portland. The en route fleet is not so large as that usually headed in this direction at this season, but the spot tonnage is considerably larger.

The traffic in lumber to the Canal Zone at the present time is very active, but it is expected to slump upon the resumption of operations by large numbers of mills on the Gulf of Mexico. These mills have been unimportant competitors during the last two years, as, with few of them operating, it was hard to get a large order. Prior to that, with the Eastern prejudice against Douglas fir to contend with, the Washington product had a hard time in the canal market.

Tramp tonnage has been used exclusively in the trade, the regular lines not making a bid for the business. The Kosmos line, which operates the largest number of steamers down the west coast, has kept entirely away from the Panama lumber trade, but the Jebson & Ostrander line has signified its intention of entering this trade on a large scale.

Trans-Pacific lines have made the announcement that a reduction of \$1 on lumber will be made from Puget Sound to the Orient, and 5s to Europe.

Among the lumber charters reported by the Shipowners' Association of the Pacific are the following: Schooner Meteor, Grays Harbor to San Pedro, \$4; schooner Andy Mahony, Grays Harbor to San Pedro, \$4; schooner Ruth E. Godfrey, Grays Harbor to San Pedro, \$4; schooner Expansion, Puget Sound to San Pedro, \$4; schooner Commerce, Puget Sound to San Francisco, \$3.50; steamer Carmel, Coos Bay to San Pedro, \$4; barkentine Mary Winkleman, Puget Sound to South Sea Islands, private terms; schooner William F. Garnea, Puget Sound to Santa Rosalia, private terms; schooner H. D. Bendixsen, Eureka to Manzanillo, \$5.25; barkentine Benicia, Willapa to Guaymas with railroad ties, \$5; steamer Coaster, Coos Bay to San Francisco, \$3.25; steamer Capistrano, Grays Harbor

to San Pedro, \$4.25; barkentine John Smith, Grays Harbor to San Pedro, \$4; schooner Defender, Puget Sound to San Francisco, \$3.50; schooner H. C. Wright, Eureka to Guaymas, private terms; barkentine T. P. Emigh, Eureka to Sydney, private terms.

Lumber rates are quoted as follows:

San Francisco, \$3.50; San Pedro, San Diego and other Southern California ports, \$4.25; Hawaiian Islands and Guaymas, \$5; Santa Rosalia, \$6; Sydney, 31s 3d@32s 6d; Melbourne to Adelaide, 36s 3d@37s 6d; Port Pirie, 35s@36s 3d; Freemantle, 40s@42s 6d; Hongkong, 33s; Shanghai, Kiaochow or Weihaiwei, Port Arthur, Taku or Newchang, Kobe, Yokohama or Nagasaki, 30s; Valparaiso, for orders (2-6 less direct), 41s 3d@42s 6d; Callao, 38s 9d@40s; Cape Town, 52s 6d.

American barkentine James Johnson, lumber, Humboldt Bay to Sydney (owners' account). American schooner Melrose, lumber, Humboldt Bay to Salina Cruz; British steamer Taunton, wheat, Puget Sound to U. K., Havre, Antwerp or Dunkirk, at 29s (recharter); British steamer Fitzclarence, Trans-Pacific trade, time charter; Chilean schooner County of Linlithgon, lumber, British Columbia to West Coast (owner's account); British tank steamer Dakota, refined oil, San Francisco to Orient; British schooner Matterhorn, wheat, Portland to U. K., Havre, Antwerp or Dunkirk, at 27s 6d; French bark Nantes, wheat, Portland to U. K., Havre, Antwerp or Dunkirk, at 27s 6d; German ship Wandsbek, wheat, Portland to U. K., Havre, Antwerp or Dunkirk, at 27s 6d (direct port less 9d); French ship Marechal de Castries, wheat, Portland to U. K., Havre, Antwerp or Dunkirk, at 27s 6d; Norwegian steamer Christian Michelsen, lumber, Portland to Orient; British ship Neotsfield, barley, Portland to Callao, at 19s; American schooner Taurns, railroad ties, Puget Sound to Mazatlan, at \$5; Australian steamer Alberta, wheat Puget Sound to U. K., Havre, Antwerp or Dunkirk, at 28s; American schooner, railroad ties, Humboldt Bay to Salina Cruz; American ship Eskin M. Phelps, sugar, Honolulu to Delaware Breakwater; French bark Pierre Antonine, wheat, Portland to U. K., Havre, Antwerp or Dunkirk, at 27s 6d; Chilean ship Ricart de Solar, lumber, Puget Sound to direct port on West Coast; American barkentine J. M. Griffith, lumber, Columbia River to Lobitos, Peru; Norwegian steamer Aagot, lumber, Puget Sound to Australia; British steamer Strathtay, coal, New York to Manila by U. S. Government; Norwegian steamer Elsa, rails, Baltimore to Guaymas; French ship Laennec, grain, Puget Sound to United Kingdom; German ship Peru, wheat, Portland or Puget Sound to United Kingdom, at 27s 6d; American ship W. F. Babcock, lumber, Puget Sound to Cape Town, at 52s 6d; French ship La Rochejaquelein, wheat, Portland to United Kingdom, Havre, Antwerp or Dunkirk, at 27s 6d.

UNDERWRITERS FAVOR WIRELESS

This year has been so disastrous to underwriters that the companies of Liverpool have placed themselves on record as favoring the equipment of all classes of craft with wireless telegraphy.

"Such a step would be welcomed by all underwriters," stated a high shipping authority, "and it would be warmly welcomed by those in Liverpool. It would tell against underwriters as a class, for the installation of wireless telegraphy on a ship would materially reduce the amount of the premium; but on the ground of humanity we are greatly in favor of every ship having its wireless apparatus. There is no necessity for us to have a special meeting on this matter, for all Liverpool underwriters are in accord with one another on the subject. It is no use

leaving it a voluntary business. To be of any use it must be compulsory and universal. Nevertheless, we cannot make a recommendation on the subject, because we recognize the tremendous cost of placing a wireless apparatus on each ship. It might not be so difficult for the great lines, but it would be almost impossible for the owners of tramp steamers. Until the cost of wireless installations is materially reduced we must not expect to see it in universal use.

Wireless Telephony

"There is another method, however, which may solve the question of cost. As you know, the installation of wireless apparatus is not only costly in the first place, but must be kept in order by the presence on board of a highly skilled engineer and expert operator, which adds considerably to the difficulties in the way of universal wireless installations of the Marconi or De Forest apparatus; but wonderful strides have been made recently with regard to wireless telephony, and it is to this, rather than wireless telegraphy, that we must look for increasing the safety of ships. About 80 per cent of accidents and casualties to shipping take place near the shore. Now, if we have plenty of receiving stations and every ship has a transmitter carrying about fifteen to twenty miles it would be easy for ships to signal their whereabouts, the state they are in, if they require help or if they have passed a ship whose movements should be watched."

SHIP OWNERS TAKE ACTION

The Sailing Ship Owners' International Union, which controls the greater portion of the sailing fleet, has issued the following circular:

"You have no doubt heard the rumor that underwriters who insure nitrate cargoes under open covers propose to put the limit of age beyond which an iron or steel ship shall not be considered a first-class risk at 15 years instead of 20 years, as at present.

"You will readily see the very serious consequences to shipowners if underwriters do this. It will, therefore, be necessary for each owner in the general interest to take this matter up in order that no change is made in the custom prevailing up to the present.

"The association of Hamburg shipowners has already raised a strong protest against the proposed arrangement on the part of the underwriters, which is considered totally unjustified, and in addition to each owner of the union bringing pressure to bear on his underwriting friends, it would be advisable to also bring the matter to the notice of the various protection associations, or other similar institutions for protecting owners' interests in the various districts.

"As you are aware, according to the rules of the union, owners are at liberty to refund charterers extra insurance incurred on cargo through the vessel's age or flag, and, if the alteration proposed by underwriters goes through, it will mean in many cases that the owners of the sailing ships which carry the nitrate will be further burdened by having to pay the proposed extra premium on cargoes carried by ships over 15 years old."

The marine insurance losses so far this year have been on a heavy scale. Several steamers, including some of the very large size and value, have been wrecked. In a number of instances the cargoes have been lost or seriously damaged. The result is that underwriters have had, and are having, heavy claims before them. Lloyds & Company of London, have announced a 10 per cent increase in marine insurance. This increase follows in the wake of a 10 per cent increase made but a few months ago.

STEAMER SANTA CLARA SOLD

The North Pacific Steamship Company of San Francisco has purchased the steamer Santa Clara from the Alaska Steamship Company. Since the inauguration of a traffic agreement with the Hill railroad, business has increased at a great rate, and it became necessary to add another steamer to supplement the service of the Elder and Roanoke. The steamer has been placed in regular service between Portland and San Francisco.

The Santa Clara was built in 1900, at Everett, by C. H. White. When launched the vessel was christened the John D. Kimball, and under that name ran from the Sound to Nome for a couple of seasons. Then Robert Dollar of San Francisco purchased the boat, renaming her the James Dollar, and she was chartered by the late Captain Elmer E. Caine, who ran her to Nome one season and then had her on the Seattle-San Francisco run for two years, running in connection with the Centennial.

Captain Caine then purchased the vessel and turned it over to the Alaska-Pacific Navigation Company, changing the name to the Santa Clara. Along with the Santa Ana, the Dora and the Excelsior, the Alaska-Pacific Navigation Company sold the Santa Clara to the Northwestern Steamship Company. The latter company was amalgamated with the Alaska Steamship Company nearly two years ago.

The Santa Clara is a wooden steamship, with modern equipments, including the wireless telegraph, and is regarded as a good sailor. She has comfortable passenger accommodations, and is a good cargo carrier. She is 223 feet long, has 38-foot beam, and a depth of 24-1 feet. Her indicated horsepower is 900, and she carries a crew of thirty-seven.

MARINE DECISIONS

Moving Vessel on Legal Holiday—In moving a vessel at the orders of the harbor master on a legal holiday cannot be counted as overtime by the crew of the ship, the work being equivalent to work rendered necessary for the safety of the vessel. The decision was in the matter of the claims of the crew of the American schooner *Americana*, who demanded overtime for work performed in moving the ship at Honolulu when the master of the vessel was ordered by the harbor master there to change the position of his vessel on a legal holiday.

Injury to Cargo—A warranty of the fitness of a vessel chartered to carry a cargo of whisky barrel shooks known by the owner to be intended for use in making wine casks, whether expressed or implied, rendered the owner liable for injury to the shooks by being so impregnated by creosote fumes that they were unfit for use, due to the fact that the vessel had last carried a cargo of creosote, in the absence of any stipulation in the charter against such liability.—*Church Cooperage Co. vs. Pinkney*, U. S. Circuit Court of Appeals, 170 Federal 266.

Negligence of Pilot—In determining the negligence of a steamboat pilot in the case of a collision, his acts and conduct must be judged in view of the dangers, emergency and conditions as they surrounded him at the time and place, when and where, the accident occurred.—*Carscallen vs. Coeur d'Alene and St. Joe Transportation Co.*, Supreme Court of Idaho, 98 Pacific 622.

Chinese and Russian tea traders have had under consideration a proposal to export China tea by automobile via the Gobi desert. The tea merchants of Kiachta are now said to be busy organizing a motor-transport service, which will ply between that place and Irkutsk, the nearest station on the Trans-Siberian Railway.

MARINE INTELLIGENCE

NOTICE TO MARINERS

Office of U. S. Lighthouse Inspector, Twelfth District, 813 Mutual Savings Bank Building, 704 Market Street, San Francisco, Cal., October 18, 1909. Notice to Mariners, Duxbury Reef, California. (List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 22).

Notice is hereby given that Duxbury Reef Whistling Buoy is reported missing. It will be replaced as soon as practicable.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.
Inspector Twelfth Lighthouse District.

Office of U. S. Lighthouse Inspector, Twelfth District, October 20, 1909. Notice to Mariners, Duxbury Reef, California. (List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 22.)

Notice is hereby given that Duxbury Reef Whistling Buoy, heretofore reported missing, was replaced October 19, 1909.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.
Inspector Twelfth Lighthouse District.

Office of U. S. Lighthouse Inspector, Twelfth District, October 30, 1909. Notice to Mariners, Humboldt Bar, California. (List of Lights, Buoys, and Daymarks, Pacific Coast, 1908, page 37.)

Notice is hereby given that Humboldt Outside Bar Whistling Buoy, California, went adrift last night. It will be replaced as soon as practicable.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.
Inspector Twelfth Lighthouse District.

Office of U. S. Lighthouse Inspector, Twelfth District, November 1, 1909. Notice to Mariners, Humboldt Bar, California. (List of Lights, Buoys, and Daymarks, Pacific Coast, 1908, page 37.)

Notice is hereby given that Outside Bar Bell Buoy, Humboldt Bar, California, went adrift October 29. It will be replaced as soon as practicable. The Humboldt Outside Bar Whistling buoy is in position.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.
Inspector Twelfth Lighthouse District.

Office of U. S. Lighthouse Inspector, Twelfth District, October 23, 1909.

1. Applications for Civil Service examination will be received at this office during the next thirty days for forming lists of eligibles from which to select engineers of steam light-vessels, with pay at the rate of \$1200 per annum, and assistant engineers of steam light-vessels, with pay at the rate of \$1000 per annum.

2. Applicants must be citizens of the United States, over 21 and under 40 years of age, and licensed by the U. S. Steamboat Inspection Service as engineers and assistant engineers of ocean vessels.

Application blanks and full information can be obtained by applying to this office.

W. G. MILLER, Commander, U. S. N.
Chairman Local Civil Service Board for the Light-house Service (Inspector's Department).

Office of U. S. Lighthouse Inspector, Twelfth District, October 29, 1909. Notice to Mariners, Alcatraz Island, California. List of Lights and Fog-Signals, Pacific Coast, 1908, page 18, No. 33, and list of Lights, Buoys, and Daymarks, Pacific Coast, 1908, page 25.)

Notice is hereby given that, about December 1, 1909, the light at this station will be moved to and established in the new tower now being built about 40 feet 156 deg. 00 min. true (SE 5/16 S. mag.) from the present light.

The light will be 214 feet above the water and 84 feet above the ground, and will be shown from a gray, octagonal, pyramidal, concrete tower, surmounted by a black cylindrical lantern, rising from a gray dwelling with red roof, and should be visible about 21 miles in clear weather, the observer's eye 15 feet above the water.

The approximate geographic position of the light, as taken from Coast and Geodetic Survey Chart No. 5532, will be: Latitude, north, 37 deg. 49 min. (28 sec.); longitude, west, 122 deg. 25 min. (21 sec.).

Angel Island, right tangent, 6 deg. 45 min. true (N by W mag.)
Goat Island, right tangent, 113 deg. 00 min. true (E 7/16 S mag.)

Fort Point Lighthouse, 250 deg. 45 min. true (SW 11/16 W. mag.)

Until the light is moved it will be obscured by the new tower between the bearings 290 deg. 00 min. true (W 3/16 N mag.) and 341 deg. 00 min. true (NW 3/4 N mag.) and by the military prison between the bearings 120 deg. 00 min. true (ESE 7/8 E mag.) and 135 deg. 00 min. true (SE by E 9/16 E mag.).

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.
Inspector Twelfth Lighthouse District.

APPRAISERS' CONFERENCE IN SESSION THIS MONTH

The annual conference of appraisers of the various ports will be held in New York City from November 8-16 inclusive. There will be representatives at the conference from every leading port in the country. In the event that any of the ports has not an appraiser, the law provides for some other officer in the customs service to be delegated to attend. The object of the session is to discuss matters of interest relative to the service and to classify the import goods arriving from foreign countries in order that a uniform value may be placed upon them at the various ports. Such a conference is held every year and it has been found to be of a vast help to the appraisers, greatly minimizing the number of appeal cases.

The following, from the Peking and Tientsin Times, as to the plans in China for navy construction, indicates the early purchase of many articles relating thereto:

The director of the Naval Board has been in communication with the viceroys of Chihli, Liang Kiang, Liang Hu, Liang Kwang and of the eastern provinces. They are unanimous in their desire to build a navy, and intend to complete it in the seventh year of Hsuan Tung (the present Emperor). They propose to send experts to inspect the Peiyang, Hupei, Fuhkien and Kwangtung navies, with a view to ascertaining their efficiency. China will then proceed to build second, third and fourth-class gunboats for police and coast duties, and for this purpose depots must be established at various points on the coast to be used as headquarters for these vessels, which are to be used mainly as guard ships, their radius of action being determined by the smaller craft dependent on them.

The naval colleges established in Peiyang, Nanyang, Fuhkien and Kwangtung are to be abolished and re-established in Hupei and Chekiang. Those at present in the Nanyang and Fuhkien are to be established in more advantageous ports. It is to be decided that the Peiyang dockyard is to be built in Weihaiwei and fully equipped in the latest modern style. The Nanyang dockyard is to be at the Kiangnan Arsenal, Shanghai, which is also to be brought up-to-date. The Foochow Arsenal is to be the dockyard for the Fuhkien fleet, and the Whangpo naval station is to be the headquarters of the Kwangtung fleet, all to be equipped with modern machinery. These reforms and alterations will occupy the first year.

The second year, having all these yards in working order, China will repair the antiquated craft at present masquerading under the name of gunboats, and then will build fleets of first-class torpedo-boat destroyers for the Peiyang and Nanyang squadrons, and a few despatch vessels, and build the naval colleges and gunnery schools necessary for the training of the personnel.

China consumes large quantities of aniline dyes, the principal imports coming from Belgium and Germany. The United States takes no part of this trade with China.

NOTICE OF PURCHASES

Navy Department,
Bureau of Supplies and Accounts,
Washington, D. C., October 29, 1909.

This Bureau will open bids in Washington, on the dates stated below, for the following material. Bidders interested therein should apply, giving the schedule numbers desired, to the Bureau without delay. Applications will be filled as soon as the schedules are received from the Public Printer. Schedules can also be obtained upon application to the Navy Pay Office nearest each navy yard:

OPENING NOVEMBER 23, 1909.

MISCELLANEOUS.

Article.	Quantity.	Delivery at navy yard	Sch.
Balls, rods, and valves for 48 sets	.....	Mare Island, Cal.	1858
water-closets.			
Chloride of calcium	.....48 sets.....	Mare Island, Cal.	1861
Glass, corrugated	.....6,500 pounds.....	Mare Island, Cal.	1858
Paper, carbon, typewriter	.....1,430 lights.....	Puget Sd., Wash.	1862
Pens, steel	.....380 boxes.....	Mare Island, Cal.	1862
Pine, Oregon, ship timber	.....240 gross.....	Mare Island, Cal.	1860
Rags, cotton or linen	.....Miscellaneous.....	Mare Island, Cal.	1861
Tubing, composition	.....1,200 pounds.....	Puget Sd., Wash.	1861
Twine, cotton	.....3,000 pounds.....	Puget Sd., Wash.	1859
Repairs to building No. 500	.....500 pounds.....	Mare Island, Cal.	1841
105, closing in of.			

OPENING NOVEMBER 30, 1909.

MISCELLANEOUS.

Burners, "Hauck"	.....6.....	Puget Sd., Wash.	1891
Ear pieces, rubber	.....400.....	Puget Sd., Wash.	1891
Fittings, pipe	.....Miscellaneous.....	Mare Island, Cal.	1891
Gauges, steam	.....105.....	Mare Island, Cal.	1892
Gear, mess	.....Miscellaneous.....	Mare Island, Cal.	1889
Gear, mess, enameled ware	.....Miscellaneous.....	Mare Island, Cal.	1889
Hose, rubber	.....6,650 feet.....	Puget Sd., Wash.	1891
Hose, steam, flexible, metallic	.....300 feet.....	Mare Island, Cal.	1892
Oil, mineral, lard	.....3,000 gallons.....	Mare Island, Cal.	1891

OPENING NOVEMBER 30, 1909—Continued.

MISCELLANEOUS—Continued.

Article.	Quantity.	Delivery at navy yard	Sch.
Shingles, redwood	.....100,000.....	Mare Island, Cal.	1888
Shingles, seconds, rough	.....10,000 feet.....	Puget Sd., Wash.	1891
Tiles, porcelain, white	.....108,000.....	Puget Sd., Wash.	1891
Tin, ingot	.....40,000 pounds.....	Mare Island, Cal.	1892
Tubing, flexible, metallic	.....150 feet.....	Puget Sd., Wash.	1891
Valves, check, brass	.....21 dozen.....	Mare Island, Cal.	1892

HARDWARE, TOOLS, ETC.

Drills, twist	.....50 sets.....	Mare Island, Cal.	1890
Hardware	.....Miscellaneous.....	Mare Island, Cal.	1890
Locks, bronze, rim	.....33 dozen.....	Mare Island, Cal.	1890
Paper, flint or sand	.....40 reams.....	Mare Island, Cal.	1890
Rivets, steel, medium	.....3,800 pounds.....	Mare Island, Cal.	1890
Screws, brass, wood	.....Miscellaneous.....	Mare Island, Cal.	1890
Screws, brass, machine	.....Miscellaneous.....	Mare Island, Cal.	1890
Tool, hand	.....Miscellaneous.....	Mare Island, Cal.	1890

STATIONERY.

Bands, rubber	.....100 great gross.....	Mare Island, Cal.	1893
Ink, Carter's black, etc.	.....390 quarts.....	Mare Island, Cal.	1893
Machines, numbering	.....	Mare Island, Cal.	1893
Bates	.....18.....	Mare Island, Cal.	1893
Pointers, pencil36.....	Mare Island, Cal.	1893
Pencils, lead60 gross.....		
StationeryMiscellaneous.....	Mare Island, Cal.	1893

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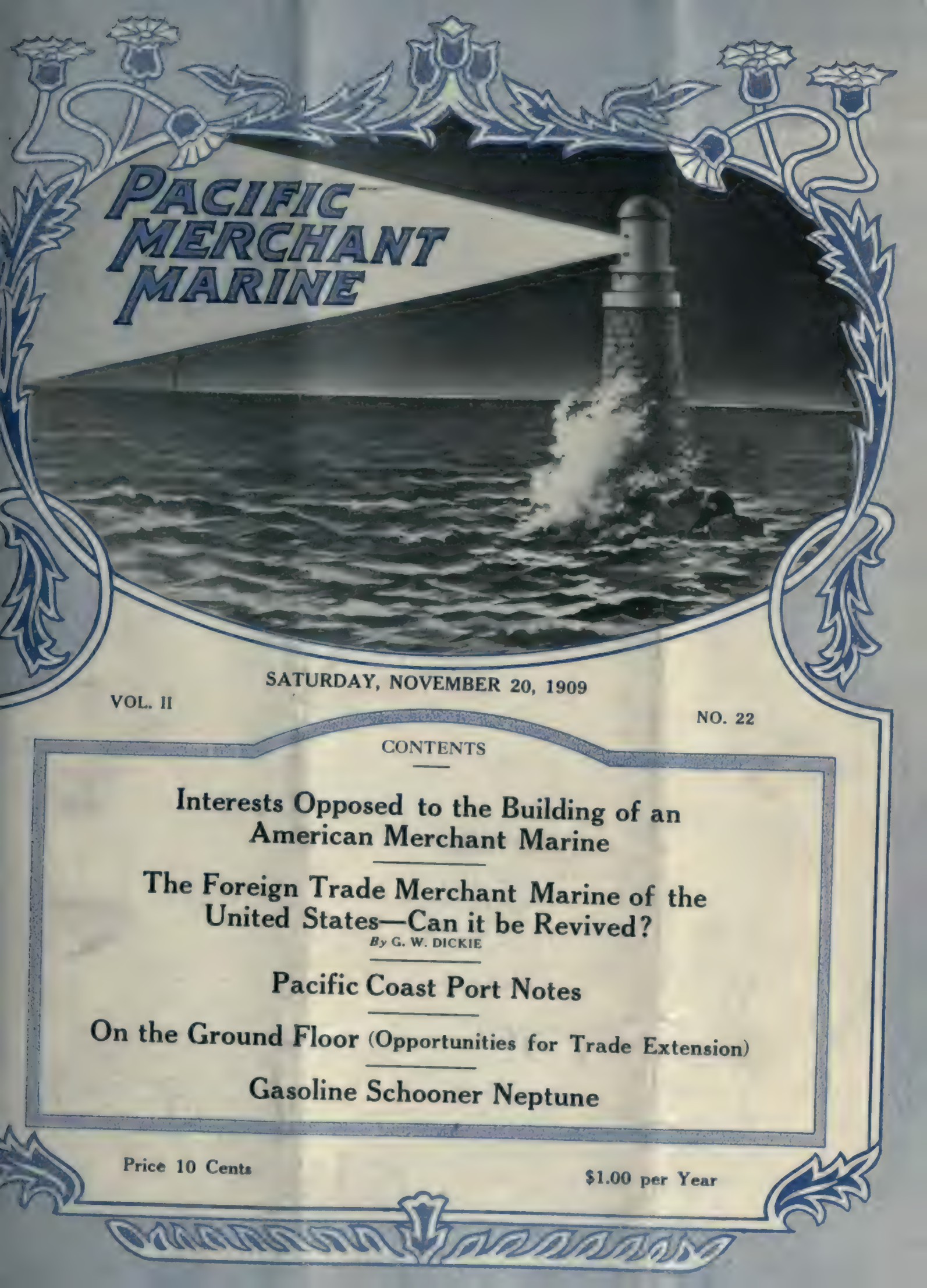
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PACIFIC MERCHANT MARINE

SATURDAY, NOVEMBER 20, 1909

VOL. II

NO. 22

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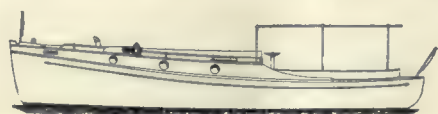
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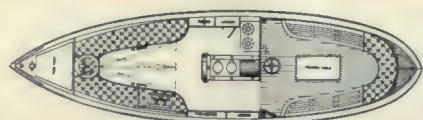
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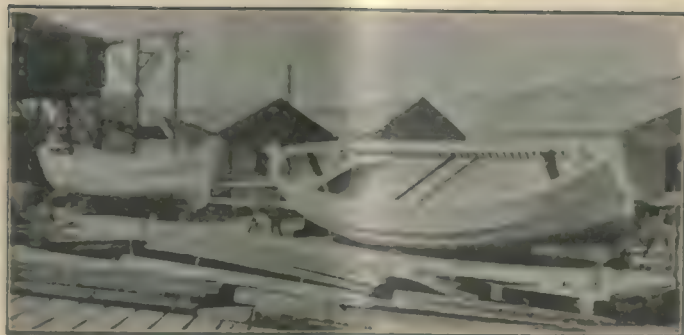
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Pacific Merchant Marine

Volume II

SATURDAY, NOVEMBER 20, 1909

Number 22

Interests Opposed to the Building of an American Merchant Marine

The chaotic condition of the American merchant marine indicates that the people of the United States are about to again employ their natural prerogative, consisting of a diplomatic rather than an offensive declaration of principles, when the interests of American citizens are pitted against those of foreign countries. The diplomacy required in the present case is of a higher order than obtains from a foreign transgression, it is a civil question, pure and simple; one in which we have no right to criticize the policies of other countries, except to draw conclusions and deduce facts, of the incentive and depreciating effect, that such policies have had upon American prosperity; the cause of which, although not of original intention, nevertheless, is an element of the original that brings into prominence the coalition of American citizens with foreign government interests. To circumvent citizenship in this manner, is a self-made law of the individual, which, when applied to a national enterprise, carries with it a proportionate number of individuals, who naturally come together, exchange sympathies, and as a body, find sufficient excuse to foist their opinions upon a less interested class of the community, many of whom are innocently led by what they believe to be a representative class. Foreign members of the coalized class, being far removed from the attacks of public opinion at home, are qualified to exert a greater influence; and more effectively than is consistent with American citizenship, and thus composing the invulnerable shield for a large following of American advocates of their cause.

To comprehend the magnitude of commerce in the world of today, we have compiled a table from the most reliable sources, showing the commerce of the principal ports of the world and the vessel tonnage engaged in its movement.

Country	Year	Commerce	Tonnage
United Kingdom	1907	\$4,839,548,000	17,318,351
Germany	1907	2,025,768,000	4,232,145
Belgium	1907	980,685,000	208,957
France	1906	1,262,607,000	1,883,894
Italy	1907	215,821,000	1,285,225
Austria-Hungary	1906	174,693,000	740,509
Russia	1906	425,091,883	974,517
Spain	1906	114,177,000	701,278
United States	1908	2,446,688,000	4,854,787
British Possessions	1907	915,313,000	1,391,186
Mexico	1907	114,661,000	34,828
Cuba	1907	113,794,000	62,264
Argentina	1907	346,123,000	150,002
Brazil	1906	231,477,000	236,340
Chili	1907	101,181,000	157,997
Uruguay	1906	57,778,000	72,685
China	1907	256,535,000	62,281
Japan	1907	352,823,000	1,142,468

It is almost impossible to conceive the number of acrostics comprised in this table that have a most significant relation to a mer-

chant marine and different from the subject matter of this article. It is, at least, worthy of one of the many comparative deductions, to illustrate an important phase of commerce and its relation to a merchant fleet.

The value of the commerce of the United Kingdom for the year 1907 was valued at \$4,839,548,000, produced from an area of 208,830 square miles, by a population of 62,557,000; the transportation facilities for this large volume of products consists of 36,686 miles of single track railroads and a merchant fleet of 17,318,351 tons.

The value of the commerce of the United States for the year 1908 was valued at \$2,446,688,000, produced from an area of 3,026,789 square miles by a population of 85,532,000; the medium for transportation required 229,951 miles of railroad and a marine fleet of 4,854,787 tons.

Necessarily basing all calculations upon the number of inhabitants of the two countries, and following the numerous ramifications of the statistical figures, the results obtained strips the American merchant marine of its coat of many colors, fashioned, cut, sewed and draped with foreign ideas and material. The following questions are pertinent and the figures convenient.

If 62,500,000 people in the United Kingdom produce goods valued at \$4,800,000,000, what should be the value of goods produced by 85,500,000 people in the United States?

If 208,830 square miles of British territory will produce goods valued at \$4,500,000,000, what will be the value of goods produced in the United States on 3,000,000,000 square miles of territory?

If it requires 23,084 miles of railroad and 17,318,351 marine tons to handle the foreign commerce of the United Kingdom, valued at \$4,500,000,000, produced from an area of 208,830 square miles, by 62,500,000 inhabitants, how many miles of railroad will be required to handle the foreign commerce of the United States valued at \$2,447,000,000 produced from an area of 3,000,000 square miles by 85,500,000 inhabitants? How many marine tons will be required to handle the same foreign commerce?

The foregoing and numerous other questions are significant and may be left with the thoughtful student of an American merchant marine.

With the aid of the printed table we are able to avoid arbitrary or random statements, at the same time to establish the magnitude of the world's commerce, and a proportionate magnitude of the marine transportation conveniences required for its movement. The value of the foreign carrying trade of the United States in American and foreign vessels is incorporated to illustrate American participation in that trade. Shipped in American vessels \$272,513,322, shipped in foreign vessels \$2,520,739,864. In other words, American vessels have carried but 9.8 per cent of the value of foreign commerce for the year 1908. The imports for the same period engaged 8,473,227 tons of American and 30,065,968 tons

of foreign vessels, and the exports 8,435,207 tons of American and 29,846,489 tons of foreign vessels. The greater part of the American tonnage shown as engaged in foreign commerce, operate under the coast-wise navigation laws, and in the absence of authentic data it is safe to assume that not to exceed 4 per cent of the total tonnage of the United States is engaged in the foreign trade. As a further increase in the volume and value of ocean traffic, we must add the passenger and mail services.

The figures demonstrate the incontrovertible conclusion that foreign interests control are making a profit, and use every influence at their command to maintain the present system. To what extent foreign interests have gone to assume control of American commerce, legally or morally, is not within the jurisdiction of the United States to remedy or eliminate; we have met a contingency that rests entirely upon the basis of American determination to control and profit by an American commercial policy, consistent with the power available.

It is a most remarkable feature of this subject that while the more pretentious nations of the world are continually adding to their merchant tonnage to participate in the great commerce of the United States, via these respective countries to the less pretentious ones; we are receiving almost daily appeals for direct communication. Does this or any other condition of American commerce signify that there is no recourse, or are we forced to submit to the popular cry of public opinion, foreign influence? The composition of the substance is immaterial; it matters little whether it be of gold or cajolery—its presence is a certainty.

It is almost impossible to collect the data representing the amount involved in transporting the commerce of the world; commerce itself indicates that the amount reaches many millions of dollars; that this vast sum divided among the few maritime nations of the world, still retains monumental proportions, and that the accrued profits are not spent entirely for what may be termed bread-winning services; the world has never recognized salaries in excess of service rendered. To own a fleet of foreign vessels to carry the commerce of the United States is accompanied by the usual expense in addition to the sum required to educate the American people to the inadvisability of an American merchant marine.

A civic organization in the average American city composed of members representing various industries at home and abroad, could not consistently expect to be unanimous upon a subject affecting the material welfare of either class. A representative in any capacity of foreign shipping interests, could not within reason be placed on record as favoring a measure in opposition to his clientele. The lobbyist, agent, counsel, or representative under any other name, of foreign shipping interests, operates in a broad field; his imperative duty is to obtain results by convincing the American people that the wonderful industrial activity of the people, their rapid progress, their present prosperity, and with numerous other arguments, is the best possible evidence of why the American people should not have a merchant marine. The field of operation of this class of gentry, as we have intimated, is not confined to particular sections or classes of the influential or voting community; lines of least resistance are followed for the quality of his converts, and the area of the country for quantity. In the first-named he may be found in Washington during a session of Congress hobnobbing with the members thereof; later in the same company at luncheon or the clubs, never failing under any and all circumstances of presenting himself at an opportune time, ever ready with the latest information from abroad that this or that country are about to abandon government aid to shipping, the tremendous loss sustained by certain foreign shipping interests in their various enterprises; in brief, he is ever ready in his artful manner to ridicule the necessity of a United States merchant marine; such of the susceptible press of the country are not too far removed from the prearranged and systematic reach of this member of glad-hand aristocracy.

An occasional trip abroad has many attractions for the American citizen; many have not the wherewith or opportunity to avail

themselves of the pleasure. If he happens to be positioned properly to be of service to foreign shipping interests, he realizes his ambition, his friends wonder as he relates his experience of travel in foreign countries, in what they consider a foreign accent, to those who are more familiar with the circumstances, the narrative is being told in a conscientious accent—and this army continues to grow with the increase of American trade and decline of the merchant marine.

The wily needle of the haystack is more easily located than our foreign subsidized and traveled friend—more easily found, however, by his air of self-importance and grotesque efforts to uphold a foreign fleet to carry American goods; the inevitable dire results that will follow any form of government aid to American shipping and quotations from the text books by which he acquired his conscientious accent.

The struggle for an American merchant marine is worthy of being fought in the open, under a code of laws stamped "United States of America, Copyright, Washington, D. C., U. S. A."—a code that has been revised to date, from which has been eliminated the vicious elements of destruction, that has torn apart an American industry, participated in with profit by the people of the world of all time.

Unfortunately, the foreign subsidized individual is difficult of discovery and it is not possible to believe that one of this class shall ever be brought before the bar of justice. The opinions of most men differ: a redeeming quality in all conditions of life when backed by honesty and sincerity—the standard upon which all men should be willing to be tried. The nearer we can approach and adhere to the standard, to the same extent shall foreign influence be diminished, the dishonest and insincere who are now hiding in the camps of the lowest exponents of ship subsidies, free ships and the many other forms that have been presented for rehabilitation will be forced to fight in the open or be removed from the field wounded by a shot in the back.

Every lawful excuse within reason is applicable to the foreign representative operating for the best interests of his foreign employer, the latter of which may be either the government, members of royalty, or private corporations, his most earnest efforts should be applied under either or all of these circumstances; his mission as an educator of the American people not excepted; with this partial commendation to his calling could he engage on our ideal field in any capacity other than a spectator to witness the struggle for an American merchant marine, or to engage him as a nurse for the mortally wounded political aspirant, the foreign fever-stricken citizen, or to attend the obsequies at the burial of disloyalty to the cause. Article V of the Constitution of the United States grants to the foreign representative all that the word freedom implies, he enjoys all the privileges accorded to the American citizen, he is free to roam, operate, buy or sell, acquire and hold property, speak, print and distribute whatever he may wish to express, and otherwise enjoy the God-given rights of man under and by virtue of American independence, he is free to retain affiliation to his mother country while yet extracting nourishment from the hand of his benefactor, and this, without other ties than the payment of a just proportion of taxes, and that he does not transgress the laws of the country—liberal to the point of extremity and so expressed in the Constitution.

With all that has been said and written, with all that remains to be known, the world has yet to learn the grandeur, loftiness and liberality of the American institution. It is when this institution has been degraded in the most trivial manner, that prompts the just resentment and awakens the more loyal citizen to a sense of duty and an humble effort to eradicate the evil or expose its violent features and its exponents. The native-born and adopted citizen share equally in the bountiful supply of American freedom, in either case his allegiance is recorded on the imperishable tablet of time; to repudiate his allegiance. The good and evil of the human mind has offered three avenues of escape. First, the legal renunciation of his trust; second, the conscience of the man; and thirdly, the judgment of his fellow man; the first-named is the structure of

the man, the latter two the inheritance from a higher authority. To suppress or successfully conceal abuse of the allegiance by the second and third methods is immunity from a just punishment for the time, but the higher law ends with the inevitable.

In the matter under discussion we must judge minor facts accordingly as they affect the greater ones; from the inception of the world's commerce we have known of the intrigue and designed for its control. Nothing in the past history of the world is so pronounced as the struggles resulting from attempts to control commerce. From the earliest records of commerce, 2,000 years B. C., when the Southern Arabs, reputed descendants of Ishmael and Esau, established commerce on the Red Sea, on through the respective periods when the legions of Rome destroyed the ships of Carthage, and nearly a million inhabitants in the year 146 B. C., later in the same year, devastating the greatest of Greek capitals and seaport of Corinth, and 60 years later to accomplish the destruction of the magnificent city and harbor of Athens. This and subsequent periods of the Roman Empire marked a struggle for the conquest of the world, dominated by the principle of that which she could not annex she assumed to destroy. History has proven the fall of Rome to have occurred, from the vicious destruction of commerce which she ultimately found to be vital to further conquest. Passing rapidly over the building of Venice and the Rialto, down through ages to the present time, we are able to connect intrigue and commerce—from the barbarous methods of ancient times to that which the enlightened people of the 20th century are pleased to call strictly business.

The barbarous methods have no place in the world of today; strictly business was unknown to the ancients; yet, the two are so inter-related that it is impossible to separate them, resorting to a true definition we find them still closely connected, with a marked distinction between the chivalrous deeds of the oppressed in ancient times compared with the hidden foe, fortified by the insidious force of strictly business.

We are forced to admit that the subject of an American merchant marine has been surrounded with innuendo sufficient to discourage the strongest advocate for its rehabilitation. We do maintain, nevertheless, that the subject of this discussion shall be found the best equipped and fortified stronghold of the opposition. This knowledge is common property; it is known by every ambitious statesman in or out of Congress for the past 60 years, the staunch advocate in Congress and humble opponent alike are aware of its existence, the former have frequently taken occasion to speak of its flagrant operations, an instance of which occurred during the last session of Congress pending the discussion of the Ocean Mail Act, when Congressman Frank Clark of Florida spoke at some length on the insidious habit of waylaying and buttonholing of members of the House. (The bill under discussion at the time was defeated by a vote of 172 to 175.)

From whatever source innuendo may spring, a logical and unprejudiced line of reasoning and investigation may be followed to forever set aside the truth or falsity of the charge; even this desirable result at times may be fraught with insurmountable difficulties as measured by the importance or magnitude of the question involved, the extent of the financial, political or other influence of the parties interested, and the penalty of profit contained in the result. The subject of a merchant marine is surrounded with this complete list of difficulties, and to this end we have completed our ideal fortress of its assailants.

If there is a starting point in the study of a merchant marine for the United States, the elementary studies are contained in the primer of foreign influence; to begin a course of studies without a thorough knowledge of this subject is to attempt the study of geography without a map of the world. Many of the master minds of this subject in the United States have conceded that the entire course of study is complete in the single volume and that the whole subject matter could be decided by a graduating class from this course. Assuming that all that has been said in opposition to a merchant marine has a certain amount of merit, such is found wanting when weighed in the balance with foreign influence.

We purpose at this time to include in the term foreign influence, any and all interests not in sympathy with, or directly connected in a broad sense, with a merchant marine. The railroad that parallels the coast line is interested in the traffic that takes place on that particular line; a line of steamers operating on the parallel becomes the competitor of the railroad; the result of which is the adjustment of both freight and passenger rates. The railroad is forced to absorb the steamship line and to cloak its ownership under the name of a steamship company. Merchant A applies to the railroad company for the rates on a large shipment of perishable goods; the rates previously established by the Interstate Commerce Commission are quoted, but prove unsatisfactory, and he applies to the steamship company who inform him that their vessels are not equipped to carry perishable goods. Merchant A is compelled to adopt the only recourse and pay the railroad rates. Merchant B applies to the railroad to ship a large consignment of live stock, finds that the rates are prohibitive, and ships the stock by steamer, figuring the enormous profits made by the steamship company. Merchants A and B conclude to establish a line of vessels. The Interstate Commerce Commission were very much in evidence in the first transaction, but the new enterprise is not within their jurisdiction, although railroad interests are known to dominate the original steamship company; the natural result is a material cut in the steamship rates, and Merchants A and B realize the irrefutable evidence of our latest form of foreign influence.

The great bulk of the interchange of freight and the entire passenger traffic between the East and the West coasts of the United States are now handled by the transcontinental railroads. A mental picture of this enormous traffic viewed from the standpoint of the railroads is one of the most valuable in existence; evidently the scientific minds of the railroads have discovered that the miasmatic atmosphere arising out of the Canal Zone is having a destructive effect on their cherished work of art, and it is none the less interesting to note the scientific experiments used for the preservation of this American masterpiece. Presumably, the remedy has been discovered in the merger system, and terminal points remote from the sea coasts and navigable waters.

Is it possible to conceive a railroad lobbyist in Washington, working in the interest of a Panama Canal that will permit a merchant marine to carry freight or passengers from one coast of the United States to the other, or that the merchant marine of Asia will be enabled to land freight in New York in place of Pacific Coast ports as heretofore, from whence to be carried to New York via the transcontinental lines, or vice versa. But the merchant marine of Europe will reach the Pacific Coast under similar conditions. It would be just as consistent to believe that this same lobbyist was advocating that the government improve the 30,000 miles of the navigable waters of the great Mississippi Valley and the South, so that the freight and passenger traffic could be diverted from the railroads to a merchant marine from 22 of the most prosperous states in the Union and 80 per cent of its population.

THE TONNAGE OF THE WORLD

Out of a total tonnage of 41,449,767 tons of the steam and sail shipping of the world, 18,826,442 tons, or 45 per cent, is owned in Great Britain, while the United States (including our lake tonnage) stand second on the list with but 4,953,812, and Germany third with about 4,183,654 tons, whereby it is seen that Great Britain still easily maintains her two-power standard over the two nations owning the largest amount of tonnage next to her. Norway comes next to Germany with a tenth of the British total, while France, Italy, Japan, Russia, Holland, Sweden, Austria, Hungary, Denmark and Spain follow in the order named.

Considering steam tonnage alone, Great Britain takes even a higher stand, for her tonnage in this respect totals 17,702,000, and the United States 3,662,332 tons.

P. C. S. S. President holds the northbound record from San Francisco to Seattle, the good time of 51 hours and 20 minutes.

THE FOREIGN TRADE MERCHANT MARINE OF THE UNITED STATES—CAN IT BE REVIVED?

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By G. W. Dickie, Esq.

About one year ago when the Society was considering where to hold a spring meeting I suggested that it should come to the Pacific Coast and hold its meeting on the shore of the great ocean on whose waters has begun a battle for the carrying trade between the oldest and the newest civilizations. The final result of that struggle and the part we may be able to take in it are of vital importance to the members of this Society; this is my excuse for bringing before you a subject somewhat out of the regular course of technical matters discussed at our meetings.

Out of the western edge of this great country we are too sick to take any interest in the technical details of our profession; we are in a battle for life, with the chances all against us. Naval architecture in the abstract has no charms when there are no ships building for which to be the architects.

In presenting this subject to the Society I would like to be able to say something that I have not said during the past twenty-five years in which I have been talking about it. The conditions have changed materially during these years; nations have come to the front outstripping us in the race for the ocean carrying trade; these nations we did not formerly consider as possible rivals. This condition is especially apparent in the carrying trade of the Pacific.

Thirteen years ago I was walking the deck of a British warship in the harbor of Yokohama with a Japanese cabinet minister, the captain of the ship and a fleet engineer; we were talking of naval strength and merchant marine when the Japanese minister remarked that the ambition of Japan was to be to the Pacific Ocean what Great Britain was to the Atlantic. We had been boasting of the naval powers of the countries we represented and did not consider that there was anything more in the remark made by the Japanese than there was in those made by ourselves. As I write this a stately Japanese liner sweeps down San Francisco Bay and I am forced to admire her as she passes in full view of my office window, carrying the United States mails and two millions of dollars in gold bars in her specie room to help pay up the balance of trade.

The Japanese have lately built some trans-Pacific liners much more advanced in design than any naval architect in this country has had a chance to produce, and yet we were building trans-Pacific liners long before they were building any ocean-going ships. How are we to account for this but by acknowledging that their government has been wise in regard to its shipping and ours has been foolish?

A careful study of the early history of the foreign trade shipping of this country shows that the United States has never had any fixed, enlightened policy of fostering any growth and permanent stability of her foreign shipping, but has always adopted a temporizing policy to meet the evil that was pressing most heavily at the time. Such a study will also show that the foreign shipping trade of this country never prospered, even in the days of wooden ships, without substantial protection, and this is due to the fact that every nation which aspires to maritime power has been willing to pay for it.

As early as 1784 the effect of the foreign policy of Britain, which aimed to prevent the loss of the colonial shipping with the loss of the colonies themselves, began to be felt in the new republic and excited universal attention and disquietude; this was so to such an extent that Congress made an application to the several states for a grant of power for a limited time to regulate foreign commerce; but even at that time, as now, the states did not all think alike about it and the effort failed. The several states next endeavored to effect their purpose by independent regulations as they had done in colonial times, but a new order of things had come and this method would not work. This was not without its value, however, for out of this experience grew the measures which resulted in the establishment of a government apparently competent to regulate the commercial interests and vindicate the commercial rights of the republic.

It is interesting to note that the needs for shipping encouragement requiring united action was what finally led to the establishment of the Federal Government, and the measures then adopted (1789) when the regulation of commerce was vested in the general government, consisting of discriminating duties in favor of American ships, and tonnage dues charged on foreign ships comprised the "Navigation Laws" of the United States as enacted by the first Congress. From 1789 to the war of 1812 a wonderful recovery of fortune resulted from the discrimination against goods carried in foreign vessels, industries took root in the land, and enterprise fully employed labor.

The early shipping policy of this country originated with the colonies themselves and differed somewhat in principle from that of the British under which only British vessels could carry cargo into British ports from Asia, Africa, or America or trade between the colonies, while in Europe the different nations might trade direct with Britain from their own ports on payment of discriminating duties.

The American system was permissive, giving their own ships a preference in their own trade through their tonnage and tariff duties which were discriminating. The British shipping law had eight distinct prohibitions while the American had none prior to 1817, when two acts of Congress were passed, one confining foreign vessels to direct trade, the other excluding them from domestic traffic. There is no doubt that these laws had a wonderful effect in stimulating American shipping, notwithstanding the hard fight that Great Britain made against them. In 1789, when protection began, the foreign trade shipping of the United States amounted to only 123,893 tons, including both exports and imports carried in American bottoms and forming but 17½ per cent of the imports and 30 per cent of the exports. In ten years the shipping of the United States engaged in foreign trade had increased to 657,142 tons, forming 90 per cent of the imports and 87 per cent of the exports. During the war of 1812 the percentage of the foreign trade carried by American ships fell to 71 per cent of the imports and 51 per cent of the exports. Under the original navigation laws in 1825 the United States carried in her own ships 95.2 per cent of her imports and 89.6 per cent of her exports, and this is the highest point reached by American shipping in the foreign trade.

The navigation laws were so effective at the beginning of the history of the United States that a good many of the friends of American shipping think that the restoration of these laws would again give to the United States her fair share in the foreign transportation of the country. A bill was introduced before Congress on March 10, 1908, for this purpose. It was entitled "A Bill to Equalize the Footing of Ships in Foreign Trade by Constitutional Regulations." This bill emanated from Mr. W. W. Bates, naval architect, formerly United States Commissioner of Navigation, a member of this society, and president of the Shipping Society of America, whose headquarters, curiously enough, are in Denver.

Mr. Bates has done a great service to American shipping by showing very conclusively that the foreign carrying trade has never been possible to American ships except when adequately protected.

While there can be no doubt as to the effect of a return to the old "Navigation Laws" in force between 1789 and 1828 on the shipping of this country, there is grave doubt as to the possibility of maintaining, under such laws, pleasant relationships with other nations who are doing business on the oceans; when these laws were enacted they were retaliatory measures, effective under the conditions then existent to fight against similar measures in use by other nations.

While the protection afforded by tonnage duties levied on foreign vessels, and discriminating duties on cargoes entering in foreign vessels, might, if they had continued, have kept the foreign trade largely in the hands of our own shipowners, yet these old measures, effective though they were, could not again be effectively applied. The world has changed since 1828 and nations bear different relations to each other than they did one hundred years ago. At that time when a nation wanted anything it usually set about devising some way whereby some other nation was forced to pay the cost of getting it. Now when a nation wants anything that is necessary to its prosperity it finds out what it will cost and, if it can afford, it pays the bill. That is what we will have to do if we want a merchant marine in the foreign trade.

It is not necessary to waste any time describing existing conditions as far as the merchant marine in the foreign trade is concerned, for it is a matter of universal knowledge and I think of universal regret that our foreign shipping trade is driven from the ocean. At the present time about 93 per cent of our foreign commerce is being carried in foreign ships under foreign flags.

To enable us to participate in ocean commerce to the extent that our imports and exports entitle us to there must be: First, ambition enough throughout the country to carry the products of our industry in our own ships to any country which cares to exchange products with us, and that ambition must be strong enough to enable us to face the apparent cost; and second, there must be wise national laws to protect and foster our merchant marine, making it possible for our shipbuilders to build and equip ships and for our shipowners to purchase and operate them; third, there must be state and municipal laws on

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EDITORIAL

The philosophy of political economy surrounds the progress of the United States with every element of endurance. The axioms established by this modern science are necessarily those that maintain by comparison with past and present; every effort to include the future obviously dissolves these truths into speculation. It is not to be inferred that political economy has, or shall ever cease to have, a profound influence in the progress of society, of which, theoretically, it aims to be the safety valve. Practically, progress must ever remain the regulator of and indicator of its truths and laws, much as John Stuart Mill (1848) differed with Adam Smith (1776) as to that which constituted the wealth of nations, namely: money or resources. The theory of Mill contending against that of Smith is consistent with the progress of the period intervening. During the life of Adam Smith (1723-90) resources and industries were entering into their respective, and, at that time, primitive stages of development, the essential element in the initial steps, necessarily, being money. Later John Stuart Mill (1806-73) observed conditions that could not have been anticipated by his predecessor. Resources and industries had progressed with a proportionate increase in value, while money remained stationary in value but increased in quantity.

It must be obvious that each exponent of his respective favored theory was correct, and that their writer fails to establish an axiom from or for the future. Progress has included securities as an element of consideration, and the student of political economy is compelled to face this issue; the complexity, however, enables him to deal more plausibly with the future.

The science of political economy, like that of all others, aims to perfection; the truths thus far established have been approved and accepted by the civilized world, and, while the foregoing comment raises a minor point of its efficiency, the fundamental principles, are, as it were,

the veins that convey the life blood of the world's system. It is with this understanding that the science has assisted the progress of civilization, under and by virtue of a law that is above humanity, which, by whatever name it may be called, whether reason or the law of God, is, forever has, and forever shall remain, the same law under different names.

Political economy has been defined briefly as the science which treats of the laws of the production, distribution and exchange of wealth; which necessarily involves the relation of man to the earth and vice versa. One great question included in the foregoing is commerce, the question that gave birth to the science, although exercising a small influence in the development of the healthy offspring; the causes are obvious; the former had maintained almost from the beginning of time it was material; the latter moral, arising from the intellects of man. It is evident the world of today has recognized the relationship and the distinction between commerce and economics, and the benefits derived by man and society from the inexorable law of the one in combination with the established law of the other.

MONEY-ORDER SYSTEM ARRANGED WITH MEXICO

The United States Post-Office Department has issued the following announcement dated August 16:

Postmasters at money-order offices are hereby notified that on and after October 1, 1909, money orders may be drawn at any money-order office in the United States for payment in Mexico. Such orders will be drawn on the domestic form, and for orders issued in this country and domestic scale of fees will be charged. The instructions contained in Circular No. 6377 relative to the transaction of money-order business with Canada, Cuba, and certain other countries, will apply in general to the transaction of money-order business with Mexico.

Money orders issued in Mexico will be drawn in Mexican currency (pesos and centavos) and will be payable in the United States at the rate of \$1 for every 2 pesos, 1 cent for every 2 centavos.

(The parcel-post arrangement with Mexico includes all the larger postoffices in Mexico, to which 11-pound packages may be set.)

Injury to Longshoreman.

The act of the superintendent of a corporation engaged in loading vessels, in directing the servants engaged in loading a vessel with lumber to load five timbers in a sling load instead of four, made with a view of hastening the work, and completing it within the time contracted for, was the act of the corporation where he, an officer thereof, was superintending the loading of several vessels, and went from dock to dock and ship to ship to see that the work progressed to the satisfaction of the dock people, charterers and the corporation, and the corporation was liable for injuries to an employee in consequence of the negligence of the superintendent.—Calvin vs. Brown & McCabe, Supreme Court of Oregon, 101 Pacific 671.

Claims against a vessel for damages resulting from collisions occurring on different dates are entitled to priority in the inverse order of such dates, upon the theory that the first claimant by virtue of his lien acquires a proprietary interest in the vessel, which is subject to the risks of her subsequent navigation, including liability for subsequent torts.—The American U. S. District Court, 168 Federal 424.

The Australian Federal Government is advised of the formation in London of a company with a capital of \$253,000 to work a coconut and rubber plantation of 10,000 acres at Collingwood Bay in Papua or New Guinea.

THE FOREIGN TRADE MERCHANT MARINE OF THE UNITED STATES—CAN IT BE REVIVED

(Continued from Page 6)

the part of sea-girt states and maritime cities encouraging shipowning and shipbuilding within their own borders.

This country is so constituted that nothing can be done to foster American shipping unless the people demand that the Government do what is necessary to recover her lost place on the ocean.

It is evident that to a country like this, having an immense seaboard on the two great oceans of the world, great power, both naval and commercial, is a very desirable thing, yet the history of this country shows that at certain stages in the development of such a country it is not a prime necessity. In its early history, when its people found it absolutely necessary to protect its shipping, with the population centered on the Atlantic seaboard and depending on an interchange of commodities between the mother country and her colonies, the energies and accumulated wealth of the people naturally turned to the sea. Behind them was a great forest of magnificent timber for building ships and in front of them a great ocean highway leading to all the countries of the earth. With such opportunities this young and vigorous country, in the beginning of the last century, found an extensive merchant shipping an absolute necessity to its development and growth in wealth and power. Her first legislative acts were promulgated for the purpose of protecting the growing sea power of the young republic; these imposed extra duties on foreign ships, thus preventing them from getting any hold on the export and import trade of the United States as long as such measures were in force.

The destruction of a part of our shipping during the Civil War used to be given as a reason for the rapid decline of our foreign shipping trade; this is an error that it is natural to fall into. The truth is that a steady decline began from the time, 1828, that the foreign carrying trade of the country was opened free to foreign ships, at which time the final restrictions on competition by all countries in our foreign trade were removed. From 1825, when this country carried in her own ships 95.2 per cent of her imports and 89.6 per cent of her exports, to 1840 the percentage had fallen to 86.6 per cent of her imports and 80 per cent of her exports; in 1850 she carried 78 per cent imports and 66 per cent exports; in 1860, 63 per cent imports and 69 per cent exports, and this decline was before the war during which there were neither imports from nor exports to the Southern States; since then the same trend of our trade shows in the statistics of our commerce as shown by the following returns:

In 1870, 33 per cent imports, and 38 per cent exports.

In 1880, 22 per cent imports, and 14 per cent exports.

In 1890, 17 per cent imports, and 9 per cent exports.

In 1900, 12 per cent imports, and 7 per cent exports.

Since 1900 the decline has continued.

That the shipping interests of the United States did not recover from the injuries received during the Civil War, but kept on steadily declining as they had done before the war, is in itself an indication that a merchant marine was not absolutely necessary to the development of this country; had it been a necessity the people would have demanded laws fostering the shipping interests.

It is interesting to note that the same nonsense about the great superiority of American skill that so largely prevails today prevailed with even more force in 1828. The first bill to abandon American shipping to its own resources was passed in 1828. Its passage was managed by Senator Woodbury of New Hampshire; in his speech he says: "We are known to possess a skill and economy in building vessels, a cheapness in fitting them out, an activity in sailing them, which without discrimination would give us an advantage in coping with any commercial power in existence. Such are the accurate calculations of our merchants, the youth and agility of our seamen, and the intelligence of our shipmasters, that American vessels can, on an average, make three trips to Europe while a foreign vessel is making two. It must be manifest to all that circumstances such as these rather than any discriminating duties, must always give and maintain to us a superiority and protection which leaves nothing to be feared from the fullest competition."

In spite of this wonderful superiority the removal of a protective duty of less than one-fourth the then prevailing freight rate drove the American ship out of that trade; if the ships were cheaper and could make three voyages to the others' two, how could this have happened?

The act of 1828 was not passed by a free trade Congress, but by the very same men who enacted the extraordinary

tariff bill of 1828. In this instance the same men were eloquent on the helpless condition of American industries in facing the fierce competition of the European factories with their generations of experience and labor, with more efficiency and less pay than the same class of operatives gave and received in America. Such is the strange inconsistency of the lawmaker, ancient and modern.

Besides the loss of all protection to American shipping in the foreign trade, other forces began to operate and finally became powerful factors in hastening the decline of American shipping.

One of these was the change which began to take place in method of constructing ships. The native oak of Old England that had enabled her flag "to brave a thousand years the battle and the breeze" was becoming a very scarce article, and, ships being an absolute necessity to her power and position among the nations, a new material had to be found out of which to build ships. This new material, first iron, then steel, had been gradually gaining the confidence of "those who go down to the sea in ships and do business on the great waters," and while the Confederate States' cruisers were burning the best wooden ships that carried the Stars and Stripes, the British shipyards were learning the most economical methods whereby iron and steel plates and bars could be given the form of ships to carry freight and not only equal the wooden walls in strength and power to carry, but to exceed the best that the shipbuilder's art could do in wood. This new material gave Great Britain her opportunity not only to maintain her position on the sea, but to extend it to a magnificence that became the wonder of the latter half of the nineteenth century. The American shipowners and shipbuilders saw all this going on, and doubtless understood how it would end, but in their country, shipbuilding and shipowning was not a national necessity in the same sense as it was in Britain, and the people, most of whom had never smelt salt water, were, and still are, indifferent. The necessity for American ships in the foreign trade of this country has been considered as only a personal matter of the shipbuilders and shipowners and not a vital national question; in Great Britain, on the contrary, her position among the nations is held to depend on her naval supremacy and so the British shipbuilder had only to learn well his business of building good ships, and his government saw to it that the shipowners should not lack encouragement to use them. The shipbuilders of this country have been unable to get their country to make any real effort to get and to hold the oversea carrying trade that belongs to it. The shipbuilder has mastered the science of modern shipbuilding and has brought into existence the plants necessary for building the highest class of ocean carriers, but no response in the shape of protection for the products of these yards has come from the people.

Thoughtful men here and there, and especially in states facing the oceans, are beginning to feel that the time has come when this country must begin the work of building up an ocean commerce through ships bearing our own flag.

When this country once realizes that the time has come when it is a national necessity that merchant ships built in our own shipyards, officered, and, if possible, manned by our own citizens, owned and operated by our progressive men of affairs, shall represent our enterprise and power in all parts of the world, there will be found a way to do it with profit to all concerned. Efforts to stimulate shipping will then be understood by the people and questions regarding such matters and needing legislation will be treated in the manner that their importance demands. Admitting to register foreign built ships as now proposed in a measure before Congress will not revive the shipping of this country; if it would the shipbuilder might be willing to be sacrificed in order that such a result might follow. A country that could not build ships has never, as far as I have been able to find, been able to own and operate them.

The absurdity of such a proposition was very forcibly illustrated by the President of the Society in his opening address at the meeting held last November in his reference to the transfer of the two largest American built ships in the trans-Atlantic trade, the Finland and the Kroonland, from American to Belgian registry for the purpose of securing the advantages of lower wages and cheaper maintenance under foreign colors. Might we not dispense with protection for every industry in this country in order to secure the advantage of lower wages and cheaper living as found in foreign countries? The necessity of doing our own foreign carrying trade is growing upon us faster than some of us care to admit. Under present conditions the value of our exports is, in round figures, \$1,750,000,000, and of our imports, \$1,250,000,000, leaving a balance of about \$500,000,000 which appears to be diminishing very rapidly and it is this balance which insures our continued prosperity. With this great export and import trade carried in our own ships

one half this balance would produce the same result. It may be doubted whether this country will be able to continue to furnish exports sufficient to maintain this balance in our favor and continue to pay about \$250,000,000 annually to foreign ship-owners to carry it for us.

We are in the habit of pointing with pride to our export trade of one and three-quarters billions of dollars and often claim that it is the result of our skill as producers and of our foresight as international merchants. Will you pardon me if I suggest that this great export trade cannot be attributed to either our skill as manufacturers or our foresight as merchants. Of our aggregate exports over one billion consists of raw cotton, food products, petroleum products, lumber and other raw materials of which we produce a surplus and of which the rest of the world must have a supply.

There is a time coming when the rapidly increasing population of this country will be more urban than it is now, when factories will multiply more rapidly than farms, when the United States will need new and important markets; the world may come to us in its own ships for the products of our farms and for the raw materials from our mines, but it will not come in its own ships for the finished products of our factories. When that time comes, and it is near at hand, we will need international merchants, international bankers, and an international merchant marine.

There are reasons why the American ship cannot compete with the foreign ship in the ocean carrying trade. National conditions over which our shipbuilders or shipowners have no control and which they are powerless to change make the cost of building vessels in the United States from 30 to 40 per cent greater than in other countries. The cost of manning and victualing these American ships is also much greater, probably not less than 30 per cent more than manning and victualing foreign ships. In addition there are other expenses in the operation of vessels which are greater in the United States than they are in other countries, such as taxes, repairs, outfit, and equipment. Most of these higher costs are the outgrowth of conditions resulting from the policy of high protection to industries that have been developed under laws first enacted, strange as it may seem, by the very Congress that removed all protection from shipping engaged in the foreign trade and which policy has continued through all the period that American shipping engaged in the foreign trade has been declining.

The cost of the materials entering into the construction and outfit of American vessels is necessarily higher because of the conditions that obtain in other industries that are highly prosperous under the conditions that obtain under the protection afforded by the tariff—industries producing precisely the same materials that are employed in building and outfitting ships. The wages of the workmen employed in our shipyards are on the same high scale due to the general standard of wages prevailing in similar industries that are great, powerful, and profitable under tariff protection.

It is sometimes claimed that the American workman is superior to his British brother and will produce as much for the wages paid as any workman in the world. There does not appear to be any foundation for this claim as applied to the workmen in American shipyards, as a large proportion of them come from the yards in Great Britain. For piece work, of which a good deal is done in shipyards, the price bears about the same ratio to the wages paid here as their piece work price bears to the wages paid there, and the wages average 50 per cent higher here than there. While these conditions continue to exist it is futile to suggest, as has sometimes been done by those who know better, that ships can be built as cheaply here as abroad. If ships could be built as cheap here as there they would be so built, and the fact that they are not built at all indicates that their cost renders them unprofitable in competition with foreign vessels.

If other nations did none of the things that they so long have done and continue to do for the encouragement and maintenance of their merchant shipping, the difference in cost of construction, operation, etc., between American and foreign built vessels would alone suffice to make it unprofitable and hence unattractive to Americans to invest in or build ships in the United States for the foreign trade; but when we add to these undeniable advantages that the foreign competitors possess over our own citizens the advantage they also possess through government assistance and regulation, then the reason why the American vessel in the foreign trade is a thing of the past is easily understood.

It is not necessary to go into what other nations are doing for the stimulation of their foreign trade.

The United States pays for the carriage of her mails about \$1,600,000 per annum.

Great Britain pays, including admiralty subvention, about \$7,000,000 per annum.

France pays, including bounties on construction and navigation, about \$9,500,000 per annum.

Germany pays for mail service about \$3,000,000 per annum.

Russia pays to ships under her postal regulations about \$2,000,000 per annum.

Japan pays in subventions about \$6,200,000 per annum.

Italy pays in subventions about \$2,700,000 per annum.

Immediately after the defeat of the shipping bill of 1907, on March 9, five days after the adjournment of Congress, the Oceanic Steamship Company of San Francisco notified the Postoffice Department that it would have to withdraw its line to Australia. This line had been operating under the ocean mail law of 1891, and after five years of trial had found the rate of compensation for 16-knot steamers utterly inadequate on the long and costly route of 8,329 knots from the Golden Gate via Hawaii across the South Pacific to Samoa, New Zealand and Australia. The requirements of the mail contract were such that the Oceanic steamers were forced to attempt to make a speed beyond their capacity over such a vast distance, and for this hard service this American Company, employing well paid American officers and crews, was given a compensation by the United States of only \$16,639 per voyage at 16 knots as compared with \$41,604 per voyage given by Germany to the Australian liners of the North German-Lloyd at 15 knots; \$47,814 per voyage given by France to the French-Australian liners at 15 knots; \$21,917 per voyage given by Japan to her Yokohama Australian line at 14 knots, and \$23,077 per voyage given by Great Britain to the Orient line to Australia at 15 knots; this latter has just been increased to \$36,250 per voyage for a 16-knot service, for which new ships have just been built. All these lines are operated at a cost of at least 30 per cent less than the American ships, and with the exception of the new contract with the Orient line, are allowed to proceed at a lower speed. Under these circumstances, then, the Oceanic Steamships Company's ships were taken off their run, their officers and crews discharged, the ships dismantled and laid up in San Francisco Bay, where they still are.

Thus the American flag has vanished from the commercial routes of the South Pacific, our only communication with the naval station and garrison of Samoa cut off, and three good passenger, mail and freight boats are eliminated from the trade between Hawaii and the mainland of the United States, forcing the people of that prosperous island to ask Congress to permit foreign passenger vessels to fill the blank.

Our business men, when they wish to communicate with Australia or New Zealand by mail, must now send their letters by a roundabout way in some British or Canadian steamer subsidized under an agreement that its owner shall do all he can to favor the trade of Great Britain and Canada. Under these conditions what is to become of the export trade that we have built up with Australia, which has grown in a few years from \$12,000,000 per year to \$29,000,000 per year, largely through the service given by the Oceanic Steamship Company? This Company disbursed over \$1,000,000 annually on the water front of San Francisco, and over 2,500 passengers per year carried by these ships passed through San Francisco, leaving not only impressions upon us but money with us. San Francisco exports to Australia have fallen off over \$1,000,000 per annum with the stoppage of this line, and that means something to our producers.

Now in the face of all this disaster to our foreign trade shipping what is the Government doing to turn this tide that sets so heavily against us? Nothing except to persevere in policies that hasten the final downfall of the little that is left of a once flourishing industry.

Our people will pay without a murmur for a big navy, and they will send it all around the world to show that there is an American flag; it must have been saluted very seldom by American ships in the foreign harbors it visited. It is presumed that the Navy is built to fight, and I know it would do so with honor if called upon to do so, but no one seems to expect that it will ever be called upon to "make good." So we are quite content to send our Navy around the world in a spectacular manner to show our flag, which is a strange sight in this generation to most countries, and we are willing to pay over \$100,000,000 per year for the development and upkeep of this splendid Navy. Other nations have noted that this costly and very fine war fleet of ours cannot go out of sight of our own shores without requiring the attendance of a fleet of foreign merchant vessels to keep it supplied with fuel and other necessities. If it should be unfortunately called upon at the present time to do that for which it was built, to fight upon the high seas at some distance from its own depots, who would supply it with the sinews of

war when, in the day of need, the foreigner could not come to our aid? That is not a question that people care to answer.

Japan answers the above question on behalf of her own policy through the Japan Daily Mail, from which I quote:

"The Japanese Government has to choose one of two things: either it must have a special service of Government transports or it must bring into existence a merchant marine such as will furnish transports at any moment. England has subsidized steamship companies whose vessels always hold themselves in readiness to act as transports. Besides, there is the enormous number of vessels plying to and from all parts of the world under the British flag and upon these she can draw in time of need, and Japan must, in proportion to her war fleet, have her merchant ships ready in case of need. Without the aid which her merchant marine was able to furnish, in 1904, her war with Russia could never have been conducted to a successful issue."

The problem of the Japanese mercantile marine is, therefore, not such a simple thing as it looks, and its future may be of much interest to us.

It may be said that the Japanese Government will not be able to continue the payment of such large bounties to the steamship lines that are developing her trade on the Pacific; but I think we will find, possibly when it is too late, that Japan can better afford to pay what is necessary to secure that trade than to do without it; the sentiment in Japan appears to be the reverse of what it is here. I will quote again from the Japan Daily Mail:

"The present expenditure on the navy is part of the nation's policy calling forth vehement criticism among the mercantile community at home and the nation's critics, both at home and abroad. The encouragement given to shipping and shipbuilding is generally acquiesced in as essential to development. The number of years required before these can be self-supporting and independent of subsidy can scarcely be estimated; the future alone can decide."

I do not believe that we should follow the French method; ships can be put on the ocean and navigated from one port to another if their expenses are paid, but this nursing is without any sound economic policy to back it up; I believe it gives no ultimate benefit to the commerce of the nation adopting it.

In my belief the first duty of the United States is to establish permanent lines of communication between her ports and the principal ports of the world, especially those where our products would be most likely to find a permanent market. The character of the service should be clearly stated and bids for the service required should be asked from responsible shipowners and awards made to the lowest responsible bidder. In this connection I would suggest the following as probably meeting the present requirements of our commerce with outside nations.

I suggest that Congress authorize mail subventions in the necessary amounts to establish the following steamship lines, the steamships for which shall be built in the United States and be wholly owned by citizens of the United States; these ships to be of the most modern type, designed for the service in which they are to be operated; the service to be for fifteen years, the subvention to be awarded to the lowest bidder, who shall give satisfactory guarantee that within two years from the date of contract he will have the line in operation. All officers and at least 10 per cent of the crew of such vessels to be American citizens. The speed named in the contract to be the average sea speed on the voyage, and the average speed of six months' operation to be taken as the speed under the terms of the contract. United States mails to be carried free of charge, and the passenger accommodations to be first-class and ample for the probable needs of the service.

1. From an Atlantic port to Brazil; monthly; speed 14 knots; 5,000 tons gross or over.
2. From an Atlantic port to Uruguay and Argentina; monthly; speed 14 knots; 5,000 tons gross or over.
3. From an Atlantic port to South Africa; monthly; speed 12 knots; 6,000 tons gross or over.
4. From a Puget Sound port and San Francisco to South Africa; monthly; speed 12 knots; 6,000 tons gross or over.
5. From a Gulf port to Brazil; monthly; speed 12 knots; 3,000 tons gross or over.
6. Atlantic and Gulf ports to Cuba; monthly; speed 12 knots; 3,000 tons gross or over.
7. New Orleans to Mexico and Central America; weekly; speed 14 knots; 3,000 tons gross or over.
8. Gulf ports to Mexico; weekly; speed 12 knots; 2,500 tons gross or over.
9. San Francisco to Japan, China, and the Philippine Islands; fortnightly; speed 17 knots; 12,000 tons gross or over.
10. Puget Sound to Japan, China and the Philippine Islands; monthly, speed 14 knots; 10,000 tons gross or over.

11. Puget Sound and San Francisco to Sonoma and Australia, including Honolulu; fortnightly; speed 16 knots; 8,000 tons gross or over.

12. Puget Sound and San Francisco to Panama, Mexico, and South America, west side; fortnightly; speed 15 knots; 8,000 tons gross or over.

13. From an Atlantic port to Europe, weekly; speed 22 knots; 20,000 tons gross or over.

These lines would require about 300,000 tons register of steamships, about 250,000 tons of which would have to be built. Compared to what we annually expend on our Navy the expense of this fleet of merchant auxiliaries would be small. These lines would build up a commerce for this country worth many times what it would cost to maintain them. The method of letting out the subsidies as it were to the lowest bidder would secure the required service at the lowest feasible figure and would be fair to all concerned.

I have brought this subject before the Society with some misgivings as to the result. Whatever position any member may hold or take on this subject, the importance of it cannot be ignored, and, while I cannot be present to take a part in the discussion which ought to follow the reading of it, I trust that there will be a full and free expression from all my fellow members of their views as to what the Government should or should not do for the shipping interests of our country.

TRADE OF NEWCASTLE, AUSTRALIA.

For the first six months of 1909, the trade of Newcastle, Australia, shows a decrease compared with the corresponding period in 1908.

The exports of coal amounted to 1,899,426 tons, valued at \$4,248,867, a decrease of 673,856 tons and \$1,768,881. The principal coal exports and the decreases were as follows: To Australasia, 1,070,881 (220,384); Chile, 288,332 tons (nearly 100,000); United States, 44,957 tons (over 100,000); Philippines, 129,340 tons. The exports of other products were valued at \$1,157,408, a decrease of \$156,912. In exports, frozen meats and wool show very slight increases. The total trade of the port was as follows: Imports, \$3,313,430, a decrease of \$585,741; exports, \$5,406,275, a decrease of \$1,925,793.

The following statement shows the value of the output of the mines of British Columbia during the year 1908.

Placer gold	\$ 647,000
Lode gold	5,282,880
Silver	1,321,483
Lead	1,632,799
Copper	6,240,249
Coal	5,872,472
Coke	1,484,394
All other	1,370,000

The total amount of British Columbia coal sold during the year was as follows, in tons: For consumption in Canada, 918,872; for consumption in the United States, 567,274; exported to all other countries, 29,883; total, 1,516,029 tons.

The Harriman lines will spend \$100,000,000 in extensions. The new trackage will amount to 2,005 miles. About 1,100 miles of this amount will be distributed among the Pacific Coast states and Mexico.

Consul George B. Schrucker writes that a controlling interest in the Eusenada (Mexico) Electric Light and Power Company has recently been purchased by a practical American, and a general improvement in the electric light and water service of the town is expected. A complete machine shop has already been purchased in the United States.

The State of California derives an annual revenue of \$1,000,000 from the rentage of San Francisco waterfront property.

On the Ground Floor

The nations of the world are strenuously seeking markets for their products in India. It is a constant source of wonder to the local commercial community that the United States, the greatest manufacturing country of the world, is content to take such an unimportant part in this trade.

Little can be accomplished by catalogues and correspondence. The American Consulate is flooded each mail day with catalogues which, in most cases, represent just so much money wasted. It must be realized by American manufacturers that the average native importer understands little about catalogues, illustrations and descriptions, and will always give his order to the man who shows him the actual sample in preference. Getting trade through the mail may often prove successful in the United States, but it is otherwise in India.

A good proportion of the American hardware now sold in Egypt is placed through a New York company which has an agent in Cairo to look after its business and payments and through whom it conducts sales on the terms to which the local merchant is accustomed.

American hardware manufacturers who desire to extend sales in Great Britain will have to meet keen and systematic competition from German makers. There is no doubt that the trade methods employed by certain foreign manufacturers often give them an advantage over Americans in goods which are no better or which are even inferior to those made in the United States.

The practice of opening up show-rooms, generally in hotels at convenient trade centers, where samples of all lines desired to be sold are exhibited, has its attractions. Huddersfield merchants are invited to these exhibitions, held most frequently at Manchester, Liverpool, Leeds or London, and their railway fares paid. By this system they are given ample opportunity of actually seeing for themselves a large variety of goods in different styles and kinds with all the slight details, which are extremely difficult to explain in conversation. This method always appeals to the young and inexperienced buyer because of the valuable assistance given him by way of suggestion and otherwise in stocking goods.

Hardware supplies from the United States are always in demand in Russia, though somewhat higher in price than the German or English products, but an appreciable extension can be made by following out the usages of the trade.

American saws enjoy a substantial sale here, but on a credit basis most wonderful results would follow. A traveler representing one of the largest saw works in the United States recently called at the consulate-general to enlist aid in a campaign of education for the benefit of the home manufacturer. He stated that he would have no difficulty whatever in disposing of his goods if sample orders would be submitted and the usual credits given, but his firm insisted on cash against documents in New York and refused to ship less than 1,000 saws in one order. The firms that required the saws are simply able to pay for the consignment, but they first wanted to examine the quality and workmanship, and, if satisfactory, larger orders would follow, and in the second place they refused to deviate from the old custom of credit. The result of this traveler's efforts were nil and another country secured the business.

This is the usual daily story that is told here in every line of trade. American manufacturers refuse to conform to the ways of the country.

The South African wool trade is commented upon by Consul Edwin S. Cunningham, as follows:

Durban is steadily increasing in importance as a wool-exporting port as Natal and South Africa are growing in importance in the wool trade. Until within the last year there were wool marts in Pietermaritzburg, and possibly other places up country, but the majority of these are gradually drifting to Durban, which enables the producer to consign his wool to the port from which it is to be shipped to the foreign market, instead of incurring additional expense and delay by consigning it to some interior wool market. The exports of wool from South Africa in 1908 were as follows: Durban, 24,117,180 pounds; East London, 39,102,112 pounds; Port Elizabeth, 32,193,275 pounds, and Cape Town, 6,005,907 pounds.

A list of the wool brokers of Durban will be furnished by the Bureau of Manufacturers, Washington, D. C.

American capitalists have made investments in mineral lands of the French colony of New Caledonia; the products, chrome and nickel, are exported to the United States. The business of New Caledonia has been greatly depressed for several years, and as a consequence the colony has lost in five years 3,000 European colonists who had settled there, which is one-eighth of the entire white population of the large island. The governor of the colony has been called to Paris to confer with the minister of the colonies, and a committee representing 1,470 planters and others, has gone to that city to lay their grievances before Parliament. A \$656,200 loan was recently secured for public works, part of which is to be expended in extending the railroad from the station to the wharf in Noumea, the capital of the colony.

A rubber company, incorporated under the laws of the State of Delaware, with a capital of \$1,000,000, has begun the development of a large tract of mahogany territory ceded them by the Honduras Government. This tract, originally known as the Reynolds concession, has been much enlarged and amplified and is said to embrace the richest hard-wood, rubber, and agricultural district in Honduras.

The construction of a railroad from the port of Armenia, located several miles to the east of Ceiba, and projected to tap the heart of the mahogany district, was commenced several months ago. The road will approximate 18 miles in length and pass for 10 miles through banana lands now producing.

It is the intention of the company to ship the valuable hardwoods to the United States as soon as the transportation facilities are completed, planting rubber and bananas as rapidly as the ground is cleared. The latter product, being a source of quick revenue, owing to the rapid growth and market demand, will gradually give way to the permanent and exclusive cultivation of the more valuable rubber tree.

The rich natural resources of this part of Honduras have long remained dormant because of lack of foreign capital and skill to bring into activity the wealth-producing opportunities that abound. American capital is unnecessarily timid in considering Honduras propositions. It should be understood that foreign concessionary privileges and rights are not interfered with by reason of local disturbances, and development companies of legitimate intent and determination, under intelligent management, and aided with sufficient capital to initiate the preliminary work involved in such undertakings, cannot fail of financial success. (For address of the company referred to send to Bureau of Manufacturers, Washington, D. C.)

PACIFIC COAST PORT NOTES

San Francisco

Bates & Chesebrough Inaugurate New Service—The steamer *San Mateo*, which was recently purchased by the Luckenback estate of New York, and subsequently chartered by Bates & Chesebrough, has cleared from the Sound for New York via the Horn, with a full cargo of salmon. The *San Mateo* will alternate with the steamer *J. L. Luckenback*, which arrived from New York on November —, on a regular schedule.

I. C. C. Want Steamship Co's to Adopt Uniform System of Accounting—A representative of the Interstate Commerce Commission has been sent to this Coast from Washington for the purpose of inducing the various steamship companies operating on the Pacific Coast to adopt a uniform system of accounting, in order to facilitate present methods when the I. C. C. has to deal with the steamship companies. Steamship lines of the Atlantic Coast have all adopted a uniform accountancy system similar to the one the Commission wants the Pacific Coast to.

The Commission contends that it can compel the steamship lines to adopt a uniform classification of accounts, and bases its contention on an act of Congress which declares to be under the jurisdiction of the Commission all steamship lines which are under the common ownership, management or control of railroads, or those which maintain with railroads an arrangement for the continuous carriage of shipments.

Alaska Mail Contracts Announced—The Northern Commercial Co. of San Francisco has secured the Alaska mail contracts from July 1, 1910, to June 30, 1914, for the service on the Yukon and Tanana rivers. The contract also includes star routes through from Valdez via Fairbanks, Tanana and Unaliklut to St. Michael. John Higness secured the connecting route from Unaliklut to Nome at \$16,000 per annum.

Steamer *St. Helenes* for Puget Sound-San Francisco Run—The steamship *St. Helenes* will operate during the coming summer between St. Michael, Puget Sound and San Francisco. The *St. Helenes* will make three trips, connecting at St. Michael with the steamer *Julia B.* for Fairbanks.

New Zealand to Subsidize Steamer Line—If negotiations, which are now being carried on between Canada and New Zealand, with a view of including Auckland in the itinerary of the Vancouver steamers, are not terminated, the United States government will be asked to assist a steamship line from San Francisco. It is planned to establish a passenger and mail service between San Francisco and Tahiti via Honolulu and Suva.

Island Shipping Firms Consolidate—W. G. Irwin & Co. and C. Brewer & Co., shipping firms of Honolulu, have consolidated and the former will cease business in the shipping and commission field. Through this amalgamation a rumor has been circulated that the Matson Navigation Co. intends to secure control of the steamers *Alameda*, *Sierra*, *Sonoma* and *Ventura*.

California Shipping Company Goes Out of Business—The California Shipping Company, for many years operating the largest fleet of American sailing vessels, at a recent meeting of the directors, has concluded go out of business and dispose of all their holding.

Seattle

Officers of U. S. R. C. Bear Explain in Cases of Victoria Sealers—Upon the return of the U. S. R. C. Bear from a summer's cruise in Bering Sea, an explanation has

been made as to why guns and sealing apparatus on Canadian schooners hunting sea otter in Bering Sea were sealed by the officers last summer. The owners of the Canadian schooners claimed their vessels were boarded by officers of the Bear and forced them to show what skins and furs were aboard. The officers then sealed all the firearms and other apparatus. The officers of the Bear contend that this action was perfectly legitimate and point to an international agreement between the United States and Canada to support their contention. By this agreement no hunting is allowed in Bering Sea north of the thirty-fifth parallel and east of the one hundred and eightieth meridian for three months in the year when the fur seals are breeding.

The certificate accompanying the action says that the seal on the gun lockers could be broken after August 1 or outside the limit stated.

Steamer *Governor Libeled*—The Pacific Coast Steamship Company's steamer *Governor* has been libeled for \$3,500 by the owner of the power launch *Skookum*, which was sunk at Pier No. 8 by the *Governor* on November 2. The allegation is made that the steamer crushed the launch against the piling of the pier.

Great War on Southeastern Alaska Run in Full Sway—The war cloud which has been hanging over the steamship traffic situation on the Southeastern Alaska run, between Seattle and Skagway, all summer, has at last broken, and with it the shipping men expect to see come the deluge. On one side are the Pacific Coast Steamship Company and the Alaska Steamship Company and on the other the Humboldt Steamship Company.

Rates, both passenger and freight, have been cut from 60 to 70 per cent. by the two first named companies in retaliation for cut rates which they allege have been in operation all summer by the Humboldt Steamship Company.

The following are the new and old passenger rates on the run: Seattle to Skagway and Haines, \$12.50 first class, \$10 second; old rate, \$30 and \$20; to Ketchikan, \$7.50 first class, \$5 second class; old rate, \$22 and \$14; to Wrangel, \$8 first class, \$6 second class; old rate, \$22 and \$14; to Douglas, Juneau and Treadwell, \$10 first class, \$7.50 second class; old rate, \$25 and \$16.

The cuts on the freight rates into the different territories are equally emphatic. On general merchandise from Seattle to Ketchikan and Wrangel, which carried a rate of \$8 a ton, the rate now is \$3; to Juneau, Treadwell and Douglas the rate of \$9 has been cut to \$4, and the Skagway rate of \$10 a ton has been cut to \$5. The rates on all other commodities show a corresponding decrease.

Vancouver, B. C.

British Columbia Packers Association to Buy Steamers—Following the action of the New England Fish Company in acquiring all the Canadian vessels engaged in halibut fishing, the British Columbia Packers Association has sent a representative to England to secure a steamer suitable for the halibut trade out of Vancouver. The latter company operates a majority of the salmon canneries on Fraser river, and if the one steamer to be purchased in England is a success, a large fleet will be secured.

Norwegian Steamers seeking British Registry—As a result of the enforcement of the Canadian coastwise navigation law, many Norwegian steamers now excluded from trading between ports, will seek British registry. This action on the part of the Norwegian shipping men has had the result of placing public opinion throughout Canada against free ships securing British registry.

The Norwegians have for many years been steadily

driving British shipping from Canada's coastwise trade, until at the present time they have almost a million tons of shipping operating that trade.

Dominion Government to Construct Dry Dock on This Coast—The Dominion government has decided to construct a floating dry dock at a cost of \$1,500,000 at Prince Rupert, according to an announcement made by William Wainwright, second vice president of the Grand Trunk Pacific Railway.

MacKenzie Bros. Purchase Steamer—Negotiations have been completed whereby the MacKenzie Bros. S. S. Company will take over the British steamer *Puri*. The steamer is at present at Bombay and it will reach Vancouver some time in February. The *Puri* was built in 1896 by Gourley Bros. of Dundee. Her gross tonnage is 936, has a speed of seventeen knots and will carry 1,300 passengers.

Portland

Steamer Butterfly Destroyed by Fire—Following an oil explosion on board, the river steamer *Butterfly* burned to the water's edge November 3 in less than half an hour. The steamer has been operating between Portland and Rainier for several months under the management of H. Young. The loss is partly covered with an insurance of \$7,500.

The *Butterfly* was formerly the *Jesse Harkins* and was built in 1903.

Steamship Company Establishes Freight Line to Seattle—The Richardson Steamship Company of San Francisco has established the first direct steamship line ever out of Portland to Seattle. The line will be used exclusively for the conveyance of freight, and if it is supported by the shippers, a regular weekly schedule will be maintained.

Port Commission May Lease St. John Dry Dock—If it can legally do so the Port of Portland Commission may lease the St. John dry dock to the Oregon Dry Dock Company. The dry dock cost the Commission \$500,000.

Tacoma

Boat Building Company Incorporated—Articles of incorporation have been filed by the Hallin Gas Engine & Boat Company, and the new concern will establish headquarters at Tacoma. It is the purpose of the company to carry on a general manufacturing and dealing in all kinds of water craft. The capital stock is \$15,000. L. A. and C. A. Hallin, O. Ohlson, E. C. Johnson and G. F. Frazen are the trustees.

Steamship and Barge Company Incorporated—The Alaska Trading and Navigation Company has been incorporated for \$250,000 and will operate a fleet of steamers and barges on the Yukon, beginning next season. Richard Roediger, J. E. Rivarad and F. O. Barker are the incorporators.

San Diego

Mexican Steamship Line Issues Schedule—The *Campania Naviera del Pacifico* of Guaymas, Mexico, which established a steamship service between Mazatlan and San Diego, has issued a schedule for the period between November 12 to January 30, 1910. The schedule calls for a twenty day between the two terminals. The steamer *Benito Juarez* left the southern port on November 12 and was scheduled to arrive on the 19th.

Stops of one day will be made at San Jose del Cabo, Magdalena Bay, Santo Domingo, San Quentin and Ensenada on both the north and southbound voyages. The company will engage in a general coastwise business, in addition to handling through freight from Salina Cruz and other ports on the lower Mexican coast, the cargoes being transferred from the Salina Cruz-Mazatlan steamers at Mazatlan.

SHIPBUILDING NOTES

Union Iron Works

S. S. Rosecrans was on drydock to receive painting, engine, boiler and hull repairs. One manganese propeller blade was fitted.

Contract to drydock, paint and repair a stone barge belonging to the U. S. G. M. D. completed.

S. S. Col. Drake at works to receive engine, boiler and hull repairs. A large number of rivets were (no copy)

British oil tanker *Oberon*, which was chartered to the Union Oil Company for five years, was drydocked for engine, boiler and hull repairs. While at the works a complete oil burning apparatus was installed.

S. S. *City of Sydney* received engine, boiler and hull repairs.

The old rudder of the S. S. *Arizonian* was removed and a new one shipped.

Norwegian S. S. *Thor*, British S. S. *Seminole* and S. S. *Nevadan* were drydocked for cleaning and painting.

S. S. F. A. *Kilburn*, which on November 3rd was rendered helpless by the breaking of her tailshaft, was laid up at the works for several days. A new tailshaft was fitted, and engine, boiler and hull overhauled.

Steamers *Maverick* and *Melrose* received miscellaneous repairs.

S. S. *Fairoaks* was drydocked for engine, boiler and hull repairs.

Interisland steamer *Mauna Kea* was at works for extensive machinery repairs.

Steamers *China* and *San Juan* were drydocked for engine, boiler and hull repairs.

U. S. R. C. *Golden Gate* received to boiler.

British S. S. *Pietan*, the largest oil tanker on the Pacific Coast, was at works for engine, boiler and hull repairs.

The contract is completed on the steamer *Vanguard*. The contract included drydocking, engine, boiler and hull repairs and painting; renew 16x16x24 inch *Samson* post and recaulk.

Steamers *Manchuria* and *Lansing* received engine, boiler and hull repairs.

Moore & Scott

The contract on the P. C. S. S. *City of Pueblo* for a general overhauling was awarded to Moore & Scott, their bid having been the lowest received.

Wilson Bros. steamer *Sandour* will go on the drydock in the near future to receive a new propeller in course of construction.

The carpenter and joiner work on the U. S. A. T. *Logan* was awarded this concern on their bid, which was considerably less than others received. The contract must be completed within the present month.

Extensive additions to the present equipment are being made at the Moore & Scott yard in Oakland in order to facilitate the work of building and repairing marine work. The improvements will cost in the neighborhood of \$50,000.

Bowes & Andrews

The extensive repairs on the steam schooner *Bandon* have been completed and the vessel is now operating on her usual run.

The carpenter and joiner work on the steamer F. A. *Kilburn*, for which this firm secured the contract, has been completed and the steamer resumed her run.

Bowes & Andrews are securing their share of the shipping revival and besides the work mentioned, a large number of minor jobs is keeping their employees extremely busy.

Portland Company to Build Steamer—The Kellogg Transportation Company of Portland propose to build a steamer next spring for passenger and freight service between Portland and Toledo, on the Cowletz river. The proposed steamer will be about 130 feet in length and will have a carrying capacity of 100 hundred tons of freight.

Extensive Repairs on the Steamer Newport—The steamer Newport, which was recently purchased from the North Pacific S. S. Company by the Dunham Brothers, will be on the ways at Eureka for a month's time to undergo a much needed overhauling. The Newport will operate between Portland and Tillamook.

Puget Sound Navigation Company to Have Fine Passenger Steamer Built—Plans are under way, by marine architects of Tacoma, for a speedy twin-screw passenger steamer to be operated on Puget Sound daylight trips. Actual construction work on the vessel will be postponed indefinitely, unless passenger traffic on the Sound within the next six months warrants immediate construction. It is doubtful whether any further action will be taken on the steamer after the plans are completed until the middle of next year.

The Sioux is the proposed steamer's name, and it will be 215 feet in length and 36 feet beam. It is expected to make a speed of 20 knots and indicated horsepower of 3,500. The steamer will be constructed of steel throughout and will burn oil. Accommodations will be made for 1,500 passengers.

Columbia Contract Company Orders Three Steel Barges—The Willamette Iron & Steel Works of Portland has secured a contract to build for the Columbia Contract Company three steel barges to be used in transporting rock to the base of the Columbia river at Fort Stevens for the national government. The contract calls for one-deck craft, measuring 150 feet in length, 36 feet beam and 9 feet depth of hold. Each barge will have a carrying capacity of 1,000 tons of rock.

Willamette & Columbia River Towing Company Awards Contract for New Towboat—The Willamette & Columbia River Towing Company of Portland has awarded the contract for the construction of a new towboat to J. Supple for \$3,400. The bids cover only the labor in the construction of the steamer, the owners to furnish the material, which, with the cost of construction it is estimated will be about \$30,000. The machinery of the old steamer Gamecock will be placed in her.

Tacoma Capitalists to Build High-speed Gasoline Steamer—W. L. Kirby and associates of Tacoma are considering the proposition of building four gasoline steamers for service between Tacoma and Seattle. It is planned to have them in operation toward the last of 1910. The vessels will be 140 feet in length and of 18-foot beam. They will be expected to make 20 knots an hour, powered with two 150-horsepower gas engines.

California and Oregon Coast S. S. Company to Add to Fleet—The California and Oregon Coast Steamship Company, which operates steamers between Portland, Eureka and Coos Bay, is having plans prepared for a new steamer.

Work Started on Tug for Willamette & Columbia River Towing Company of Portland—The log towing tug My Choice, now building for the Willamette & Columbia River Towing Company, will be in active service within four months. The tug will be 160 feet in length, 33 feet beam and 8 feet draft. It will take the place of the tug Gamecock, recently destroyed by fire.

The steam schooner Cascade is undergoing a general overhauling.

MARINE INSURANCE IN EXPORT TRADE

A FIRM OF EUROPEAN EXPORTERS WHICH CARRIES ON A LARGE BUSINESS THROUGHOUT SOUTH AMERICA HANDLES THE QUESTION OF MARINE INSURANCE IN THE FOLLOWING MANNER, WITH VERY SATISFACTORY RESULTS

Merchandise is insured for the account of our clients against sea perils only, or against sea perils including robbery or breakage. Customers will kindly instruct us as to the form of policy desired.

Our policies insure our customers against 5 per cent particular average; that is, provided the loss or damage amounts to 5 per cent of the value of each package, the insurance company is liable for any loss or damage over that amount.

All shipments should be inspected immediately following discharge from vessel. In case of damage or loss the importance of damage or amount of loss must be ascertained at once, so advise the agent of our insurance company whose address is given below. Should there be no agent for our company, call upon the agent for any other marine insurance company, or the German consul or consular agent. Should there be no consular officer in the city, apply to the local customs authorities.

The mentioned agents, consuls or local customs authorities will appoint an expert to examine the shipment and to report on the loss or damage sustained by each separate package. The interests of our clients can not be protected unless the investigator reports on the shipment package by package, and unless he specifies the loss or damage on each separate package. If loss or damage is not specified on each separate package the insurance company will calculate their particular average at 5 per cent of the value of the entire shipment, leaving our customer to shoulder the loss.

The certificate of the examiner should state the total cases broken or robbed, the number (shipping number) of each case, and the number of bottles broken or stolen. In the case of damaged barrels the same proceeding should be followed, reporting the number of litres short.

We must impress on our customers the necessity of following our instructions, as the insurance company has the right to refuse payment for losses if the certificate is not correctly made out. Certificates in proof of loss should be forwarded to us as soon as possible.

As all packages leave our hands in good condition, solidly and firmly packed, we have to advise our customers not to accept any certificate in which the examiner declares that the damage to the shipment resulted through careless or improper packing. The insurance company will not consider claims where damage has resulted from improper packing of goods. In these cases we must advise our customers to obtain reports from experienced merchants as to the manner in which the shipment was packed.

The agent of the steamship company which carried the damaged shipment can not be considered an impartial examiner, and a certificate given by him will have no effect. If under the policy the loss or damage amounts to over 5 per cent of the value of each package the charges or fee of the expert who examined and reported on the damage will be paid by the insurance company.

In case of robbery the insurance company requires our customers first to present their claims to the agent of the steamer which carried the goods. If the said agent shows that his company is not responsible, or if he refuses to pay the value of the stolen merchandise, follow our instructions as in the case of damaged shipments.

A circular letter on the subject of marine insurance, recently issued by another firm of German importers, reads as follows:

Many of our customers have informed us that, in order to save expense, they desire us to insure their future shipments against maritime risks only, as they prefer to assume all risks of robbery or breakage. We have therefore modified our marine policy and will hereafter insure all shipments under either of the following forms: (1) Against maritime risks only (robbery and breakage not included); (2) against all risks, robbery and breakage included.

Kindly therefore advise us, with future orders, as to the form

of insurance you desire, it being understood, however, that in the absence of specific instructions, we will insure your shipments against all risks.

We wish to advise our customers that insurance against customs duties are not included in the forms of marine insurance policies mentioned above. According to our usual custom we insure the value of the merchandise in Europe at the time of shipment, adding the freight paid and plus an increase of approximately 33½ per cent.

If our customers desire to insure against customs duties (should the laws of their country exact payment on articles broken or robbed in transit), they must give us specific instructions on this point with each order, indicating also the additional sum to be covered by the customs insurance.

Insurance against losses by payment of customs duties on broken or stolen shipments requires a special policy which, plus stamps and according to destination of goods, amounts to about one-half of the amount of premium additional on a policy covering all risks. Example: On a shipment valued at 1,000 francs we insure as follows: Value of merchandise at time of shipment, 1,000 francs; freight, consular invoice and other charges, 50 francs; usual increase of 33½ per cent, 350 francs; total 1,400 francs at 2½ per cent equals 35 francs premium on policy, plus the stamps required by law.

If our customer instructs us to take out a supplementary policy of, say 700 francs, to cover loss in payment of customs duties, the insurance will be calculated as follows: Amount of invoice, 1,400 francs; insurance, at 2½ per cent, 35 francs; insurance on customs duties, 700 francs additional; at 1 per cent, more or less, 7 francs; total premium, 42 francs, plus the stamps required by law.

Our rates of premium, marine insurance, Bahia, Santos and Pernambuco, against all risks, 2 per cent; maritime risks only, 1 per cent. Other ports in Brazil, including Manaus: Against all risks, 2½ per cent; maritime risks only, 1½ per cent.

ALASKA PACKERS TO IMPROVE SHIPYARD

For the purpose of repairing all their own ships instead of letting repairs out on contract, the Alaska Packers Association has commenced dredging operations on the Alameda side of the estuary in front of their shipyards and warehouses. A uniform depth of 25 feet will be made, which will allow the largest of the fleet to dock.

With the exception of three, all the ships of the association are now laid up in the estuary. The three are being repaired at different shipyards about the bay. As soon as the capacity of the marine railway is increased the ships now laid up will be repaired for their trip to Alaska next season.

The association will, in the future, discharge the salmon cargoes of their vessels at the shipyard instead of on the San Francisco side of the bay, as the Southern Pacific intends to lay a track direct to the water's edge.

U. S. supply steamer Supply lost both her masts and all her lifeboats in a severe storm in Oriental waters the latter part of October. Although full details are lacking, last reports state the steamer repairing at Yokohama.

PACIFIC COAST SHIPPING TO BE PROTECTED

As the result of a conference between members of the merchant marine league and Beekman Winthrop, assistant secretary of the Navy, for the protection of the shipping of the Pacific Coast, a clause will be inserted in the charters for coal cargoes to the Pacific between the Government and foreign vessels which will prohibit them hereafter from gobbling the commerce of the Pacific. They will be paid for the entire haul, and, under the form of the contract, they must return to the original port empty.

WHAT THE WORLD IS DOING TO IMPROVE SHIPPING

Special Agent Julien L. Brode writes from Constantinople that, on a recent visit to Athens for the purpose, he has induced the Hellenique Steam Navigation Company to place two vessels on the route between New York and Constantinople. The steamers Athenai, 17,000 tons, and the Themistocles, 15,000 tons, are now in this service. Both are new vessels, equipped with all modern improvements for freight and passengers.

The line has been established at the solicitation of the merchants of Constantinople. The yearly imports have amounted to \$142,000,000, of which the United States has furnished but \$3,000,000. The importers complained against lack of steamship communication as the reason for the small amount of imports from the United States, and that this small amount had been received as transshipments via London, Liverpool, Marseilles, Genoa, Naples, Trieste or Piraeus. The importers and traders show a marked preference for American goods.

The society for the protection and development of the commerce and industry of Bordeaux has adopted the views of the Chamber of Commerce of that French city in the matter of the proposed improvements of the port.

(1) The deepening of the channels from the mouth of the Garonne to Bordeaux so that ships drawing 28 feet of water may anchor. This is to be accomplished by deep-water dredging.

(2) The construction along the right bank of the Garonne of 820 feet of wooden quays as an extension of the already existing quays des Queyries. The creation of new mooring posts for large ships and the erection on the left bank at certain points of deep-water quays in place of the present sloping levees.

(3) The widening of the dock gates or entrances, and the deepening of the dock basins.

(4) The enlargement of the present graving dock to permit the entrance and docking of vessels 550 feet long.

(5) The construction of a canal from Grattequania to the present basin No. 2, together with the necessary quays and a third graving dock.

(6) The reconstruction of the Panillac quays, provided the state does not insist on a reduction of the appropriation for the port of Bordeaux proper.

(7) The construction of a refuge harbor at Verdon, accessible to vessels drawing 40 feet of water.

The Liverpool Journal of Commerce comments upon an addition to the bills of lading recently made by some of the chief steamship companies plying between Liverpool and the United States.

The clause commented upon follows: "All claims for loss, damage or otherwise howsoever against the shipowners, or their agents or servants or the ship, under or in respect of this bill of lading, or in respect of the goods, shall be made and settled in England and in English courts, and no proceedings under or in respect of this bill of lading, or in respect of the goods, shall be taken against the shipowners, or their servants or agents or the ship, in any other country, and the shippers, by accepting this bill of lading, agree that if by the law of any other country the shipowners, or their agents or servants or the ship, become liable for any such claim by any person for which they would not be liable according to the terms of this bill of lading under English law, then, and in every such event, the shippers shall indemnify the shipowners, their agents and servants, against such liability and all

costs and expenses of any proceedings relating thereto."

Several members of the Shipping and Forwarding Agents Association have expressed their views, and the general opinion seems to be that the clause is very much in favor of the shipowners, while on the other hand the interests of the shippers were likely to be jeopardized.

No objection is raised to the object of the clause in the desire to settle all cases in an English court of justice. On the contrary it is stated this course would at all times meet with the approval of shippers; but what is chiefly objected to is the latter portion of the clause, which is considered to have the effect of penalizing the shippers in the event of any case in dispute not being settled in an English court, even though it should be beyond their control to consummate this desirable arrangement.

SUEZ CANAL TRAFFIC

American Merchant Marine Represented by One Vessel

Vice-Consul-General Frederic W. Cauldwell, of Cairo, writes that only one vessel flying the American flag (exclusive of warships and military transports) passed through the Suez Canal in 1908. This was a vessel of 626 registered tons. Mr. Cauldwell gives other details of the Suez traffic:

The following vessels giving United States ports as ports of origin passed through the canal during the year:

	Registered tonnage.
69 vessels carrying British flag	246,088
21 vessels carrying British flag (from United States possessions)	56,163
1 vessel carrying French flag	3,074
30 vessels carrying German flag	94,354
3 vessels carrying German flag (from United States possessions)	7,520
3 vessels carrying Japanese flag	9,010
1 vessel carrying Norwegian flag	2,489
13 vessels carrying Spanish flag (from United States possessions)	31,390

The following vessels giving United States ports as ports of destination passed through the canal during the year:

	Registered tonnage.
135 vessels carrying British flag	390,678
5 vessels carrying British flag (to United States possessions)	14,519
3 vessels carrying Austro-Hungarian flag	9,063
3 vessels carrying French flag	12,046
32 vessels carrying German flag	104,805
1 vessel carrying Japanese flag	2,904
13 vessels carrying Spanish flag (to United States possessions)	30,826

Of the vessels giving United States ports as ports of destination, 14 were for Boston, 87 for New York, 11 for Philadelphia, 44 for Delaware Bay, 2 for New Orleans, 1 for Port Arthur, Tex., 1 for Galveston, 1 for San Francisco, 1 for Portland, 1 for Seattle, 10 for Manila, 8 for Iloilo, and 2 for other Philippine ports. Six American warships passed through the canal in 1908 and 4 in 1907.

The total number of vessels passing through the canal in 1908 was 3,727, of a registered tonnage of 11,357,179. In 1907, 4,209 vessels, of a total registered tonnage of 14,596,478, passed through the canal. Of the total number of vessels going through the canal in 1908, 2,194 were British, with registered tonnage of 6,858,695; 105 Austro-Hungarian, with 314,791; 243 Dutch, with 660,045; 238 French, with 714,729; and 583 German, with 1,927,634.

HARBOR IMPROVEMENTS IN VARIOUS PARTS OF THE WORLD

The British-Arabian port of Aden, at the entrance to the Red Sea, is improving the channel from the anchorage beyond Steamer Point, and the mooring basin of the inner harbor. They are being dredged from a mean low-water depth of 26 feet to 30.6 feet. By the end of February next the work will be completed and the inner harbor at Aden will then be able to accommodate the largest vessels that can pass through the Suez Canal for years to come. The work for dredging the Suez Canal through its entire length from 28 to 35 feet will require five years to complete.

The through business of the San Francisco-Tahiti-Wellington line is increasing. The Mariposa brought on the last trip 330 tons of freight for the Wellington ship, a considerable part of which consisted of 5,000 boxes of American apples for New Zealand and Australian cities. A good many passengers choose this line by way of this beautiful island, and some stop over a month or longer.

After it was arranged for the San Francisco and Wellington ships to connect at Tahiti, the wharf accommodations of the port were found to be so inadequate that the government has recently extended the wharf to more than twice its former capacity. Two years ago 500 yards of retaining sea-wall was built in the residence part of the town of Papeete, where the cyclone of February 7-8, 1906, did the most damage to the shore. Now 450 yards of wall from the wharf along the bay front of the principal business part of the town has been restored, which adds much to the convenience of schooners and other small vessels.

The London Financial Times says that an official announcement may be expected shortly relating to a government grant toward the International Railway Exhibition at Buenos Ayres, and the formation of a British exhibit by the newly formed exhibitions branch of the Board of Trade. During the next few years the Argentine Government will build about 3,000 miles of new railway for development purposes. With the exception of such materials as the native quebrache, or hard wood, for the manufacture of sleepers, practically every detail—locomotives, carriages, wagons, brake fittings, telegraph material, signals, rails, etc.—will have to be ordered from abroad. Argentine buyers will not only naturally be influenced when ordering by the appliances displayed at the exhibition, but the Government will in all likelihood prefer to place orders with manufacturers of such countries as have most supported the exhibition.

The Associated Chamber of Commerce of San Francisco, Oakland, San Diego, Los Angeles, Seattle, Portland, Tacoma and Spokane will visit China in February next by invitation of the Chinese Chambers of Commerce.

The London and China Telegraph publishes the following plan of the Austrian Government to develop trade with the Netherlands India.

The plan exists to have a better direct communication of the Alexandria line of the Austrian-Lloyd with the Netherlands steamship companies. Provisionally, the passage tariff for the route Batavia-Trieste will be the same as Batavia-Geneva, and when taking the former route passengers may avail themselves of the railway between Alexandria and Port Said. As soon, however, as the Austrian-Lloyd has placed fast-running steamers in the Alexandria line direct communications with the Netherlands steamers would touch Alexandria, and the quickest communication between Europe and East Asia might be obtained. In connection with the above an Austrian commercial museum will be established at Batavia under the management of Dr. F. A. Schoppel, at present director of the office for trade and tourist traffic in India. In this museum a permanent exhibition will be held of Austrian produce and the manager will be authorized to appoint leading firms in Java as general agents for the sale of Austrian merchandise. Reports of these agents will be published and Austrian merchants and

industrials will in this way be encouraged to establish new undertakings in the Indian Archipelago.

Consul Joseph G. Stephens reports that the Kronprinzessin Cecilie of the Hamburg-American line, which arrived at Plymouth on October 4, inaugurated a new traffic. In addition to passengers the vessel landed 84 tons of frozen and salted meat from Mexico, consigned to a London firm. It consisted of 156 quarters of chilled beef and 305 cases of salted meat, chiefly bacon and ham. The shipment was reported to be in the best of condition. The importers anticipate considerable developments in the shipments from Mexico which are to reach Plymouth once a month, and will, with the direct shipments from Australia, New Zealand and the Argentine, form an additional source of competition with the imports from the United States.

It is expected an outcome of the tour of the Chinese Commission, headed by Baron Liang, son of Liang Cheng, former minister to the United States, will result in the placing of extensive orders for naval and army equipment.

SUBSIDIES OF FOREIGN NATIONS

November 12, 1909.

Mail subsidies, admiralty subventions and navigation bounties of foreign nations are considered at some length in the report of the Bureau of Navigation to Secretary Nagel of Commerce and Labor. Commissioner Chamberlain shows that under these heads, including also shipbuilding and fisheries bounties and retainers for naval reserves, these expenditures now amount annually to \$46,896,000. The United States for ocean mails in 1908 paid to American steamers \$1,467,255, and to foreign steamers \$1,228,032, our subsidies being less than those paid by Canada. The expenditures of foreign governments are grouped under the following heads, according to the latest returns from foreign governments:

GREAT BRITAIN AND COLONIES	\$0,680,384
Subsidies and mail pay (British Postmaster-General, 1908)	\$3,320,454
Cunard Admiralty subvention (1909)	729,000
Royal Naval Reserves (1909-10)	1,783,620
Canadian subsidies and mail pay (1910)	1,581,800
Fisheries bounties (1909)	160,000
Australian and New Zealand subsidies and mails (1909)	1,263,600
Cape Colony subsidy (1909)	656,910
Jamaica subsidy (1909)	194,000
FRANCE	\$13,423,737
Mail subsidies (1908)	\$5,217,037
Navigation and Armament bounties (1908)	6,079,500
Shipbuilding bounties (1908)	2,007,200
Fisheries bounties	120,000
JAPAN	\$5,413,700
Mail subsidies (new law)	\$4,379,000
Shipbuilding bounties (1908)	997,700
Fisheries bounties...	37,000
ITALY	\$3,872,917
Mail subsidies (1908)	\$2,328,917
Navigation bounties (1909)	677,734
Shipbuilding bounties (1909)	866,266
SPAIN	\$3,150,012
Mail subsidies (new law)	\$1,858,186
Navigation bounties (new law)	1,291,826
Shipbuilding bounties (not ascertained)	
AUSTRIA-HUNGARY	\$2,984,530
Austrian-Lloyd subsidy (1908)	\$1,450,400
Suez Canal refunds (1908)	375,000
Navigation and shipbuilding bounties (1908)	880,000
Hungarian mail contracts (1908)	279,130
GERMANY	\$2,301,020
Mail subsidies (1908)	\$1,706,460
Mail pay (1907)	594,560
RUSSIA	\$1,878,328
Subsidies (1908)	\$1,543,578
Suez Canal refunds (1908)	334,750
NORWAY	\$1,102,143
Mail subsidies (1908-9)	\$ 561,788
Trade subsidies (1908-9)	513,555
Tariff refunds (1908-9)	26,800
NETHERLANDS	\$880,011
Mail subsidies (1908)	\$ 841,827
Naval reserves (1908)	38,184
SWEDEN	\$277,752
South American and Asiatic subsidies (1909)	\$ 140,000
Mail pay (1908)	137,752
State loans (not ascertained)	

DENMARK	\$145,000
Trade subsidies (1902)	\$
Harbor dues exemption	\$ 145,000
BELGIUM	\$55,970
Trade bounties (1908)	\$ 23,160
Pilotage refunds (1908)	32,810
PORTUGAL	\$50,000
Mail subsidy (1908-9)	\$ 50,000
GRAND TOTAL	\$45,224,513

Outside of Europe and Japan subsidies and mail payments have been reported for 1908 to the Bureau as follows: Chile, \$253,195; Mexico, \$75,000; Egypt, \$54,512; Brazil, \$1,300,000; in all \$1,682,707, making with the above, a total of \$46,896,700.

The report will not come from the printer before early in December.

CHARTER MARKET

With market conditions in Europe not favorable to export from the Northwest and with California absorbing large quantities of the crop, fixtures for grain are few and the market is weak, tonnage being still plentiful in view of the small foreign demand. Coastwise carriers are all leaving with good-sized shipments of wheat.

A number of British sailing craft waiting for orders are still negotiating for homeward bound charters, but with the union sailing rate only six pence under what steamers are willing to accept their prospects do not seem to be bright. The fixture of the Norwegian steamer Christian Michelsen, now at Redondo on a time charter at 800 pounds a month, a good 100 pounds reduction for vessels of her class is an indication of the weakness of the market.

The British steamer Taunton, on the Columbia river, is to load for the United Kingdom at 29 shillings and the Austrian steamer Alberta, now on the Sound, arrived at Tacoma yesterday, to load wheat for Europe at 28 shillings. Even at this lower rate there is no evidence that grain men are anxious to secure bottoms.

In the lumber trade the coastwise business is holding its own, but shows no great activity. Steam craft are finding no difficulty in getting cargoes.

British steamer Bannockburn, lumber, Portland to China, on time charter; British steamer Induna, beans, Dalny to United Kingdom; British steamer Kilchattan, Pt. Kemble to Penang or Singapore; British ship Drummuir, lumber, San Diego to Sydney at 33s. 9d.; British tanker Seminole, refined oil, San Francisco to Orient; British ship Ben Lee, lumber, Puget Sound to Melbourne or Adelaide at 32s. 6d.; French bark Bouganville, wheat, Columbia River to United Kingdom, Havre, Antwerp or Dunkirk, at 27s. 6d.; British steamer Glenalvon, lumber, Puget Sound to Sydney and Newcastle, at 31s. 3d.; French ship Andre Theodore, wheat, Portland to U. K., Havre, Antwerp or Dunkirk, at 27s. 6d.; Italian bark Cavour, lumber, Puget Sound to Chile or Peru, at 38s.; American schooner J. W. Clise, lumber, Puget Sound to Chile or Peru, at 38s. 9d.; Schooner Eldorado, lumber, Puget Sound to Santa Rosalie; British steamer Alden, rails, Baltimore to Guaymas and Vancouver.

GOVERNMENT OPENS BIDS FOR COAL TRANSPORTATION

The Navy Department on November 5 opened bids for the transportation of two or four cargoes of coal to Cavite, Manila, P. I. The United States Shipping Company and Howard Houlder submitted the lowest bids at \$2.75 per ton, and Simpson, Spence and Young was the highest at \$3.25 a ton. Howard Houlder submitted five bids ranging from \$2.75 a ton to \$3, according to date of delivery. Hasler, Leitch and Company submitted three bids at \$2.99, \$3.05 and \$3.07; Barber & Co., two bids at \$2.99 and \$3.04, and the following firms one bid each: J. H. Winchester & Co., \$2.89; Benham & Boyeson, \$3.05; Lind & Co., \$2.90; Gustavus & Co., \$2.97; American Transportation Co., \$2.92; Baker Transportation Co., \$3.15; Peter Wright & Sons, \$3.12; Bowring & Co., \$3.04; N. Y. & Porto Rico S. S. Co., \$2.78.

GASOLINE SCHOONER NEPTUN

Germanischer Lloyd has recently classed through their agent in San Francisco, Mr. P. R. Thayer, the new German Schooner for Williams, Dimond & Company, built at the shops of Stone and Van Bergen for XA1 for nine years.

The Neptun was built for the Jaluit-Gesellschaft of Hamburg, and Captain J. H. Schmidt is to take the vessel down to the Caroline Islands.

The new auxiliary schooner is of 197 tons gross, 131 tons net, with an under deck tonnage of 145, and is 104.1 feet long, 25 feet beam and 10.6 feet deep. The poop is 29.9 feet long; amidship house 27.2 feet and the forecastle 12.8 feet. The vessel draws 10 feet of water when loaded.

The vessel has one complete deck laid and caulked, leaving a large hold forward for the stowage of cargo. Immediately aft of the hold is the engine-room. The forecastle is built into a square house about the middle of the forward deck about 12 by 10 feet inside, down through the center of which the foremast passes and is stepped on the keelson. The forward half of the forecastle house is divided into two rooms entered from the deck by means of a sliding door. There are two berths in each room built against the center bulkhead. The after half of the forecastle house is divided to form a galley on the port side with room for the cook on the starboard side. Both entered from the after end.

On the main deck immediately forward of the forecastle house is a small hatch two by two feet. Between the forecastle house and the bridge house is a hatch seven by eight feet, giving main access to the hold. There are two small hatches near the after end of the poop, two feet nine inches by two feet nine inches, giving access to the after store-room.

The bridge house is entered from the main deck forward and the poop aft by means of companionways. A passageway from the forward companionways goes along to the main saloon which is 10 feet wide and 16 feet long with the dining-table in the center.

On the port side in the forward end of the bridge house is the trading-room fitted up with shelves, table and counter. This room is 10 feet wide and 11 feet long. Immediately aft of the trading-room are two state-rooms, one of which is for the mate, six by six feet, with a store-room between them six feet wide and four feet long.

On the starboard side of the bridge house is the captain's room at the forward end, eight feet wide and eleven feet long, fitted up with a berth, desk, seat and locker. Immediately aft of the captain's room is the room for the engineer, which is six by six feet, with a berth and drawers under it. The pantry is six feet wide by four feet six inches long, fitted with shelves, and between the pantry and the after bulkhead of the bridge house is the bath and toilet.

Each of the rooms is fitted with a wash basin and the bath-room is fitted with a large enameled bath, wash basin and toilet to match.

The mainmast passes down through the cabin at the after corner of the trading-room and steps on the keelson in the hold.

The engine-room skylight is on the poop aft and is nine feet long and four feet wide with a forward end abutting against the after end of the bridge house. The fuel tanks are on each side of the engine-room alongside of the engine. The engine is a three-cylinder, old style, heavy duty, Hercules-Marine Gas Engine, turning her propeller about five feet in diameter and developing about 75 horsepower.

The specifications called for the keel to be 12 by 24 inches, including the shoe; with the stem sided 10 inches and moulded 8 inches, both of pine. The stern post is of oak sided 14 inches and moulded 18 inches. The rudder post is 10 by 10 inches of white oak and the rudder stock is 10 inches diameter, white oak. The frames are of pine spaced 27½ inches, center double 8 inches sided, moulded 9, 7 and 6 inches. The main deck beams are 10 by 10 inches. The ceiling is 3 inches thick below the bilge and 4 inches in the bilge and up to the clamp. The clamps are 6 by 10 inches. The keelson 12 by 14 inches. The outside planking is 3 inches

thick with the exception of the garboard which is 4 inches thick. The decking is 3 by 4 inches. The frames, ceiling, clamps and keelson and decking are of pine. The bulwark is 1½ by 4 inches T. & G. with a rail 4 by 11 inches. The plank-sheer is 4 inches thick. There are seven pairs of hanging knees under the main deck. The pointers forward and aft are 10 by 14 inches. The fastening throughout the vessel is generally three-quarters and seven-eighths inches galvanized iron with one inch iron in the keelson. The treenails are of locust, the spikes on the outside plank are three-eighths by seven inches. Up to the water line the vessel is fastened with composition spikes underneath the metal sheathing. The masts are of pine and the rigging is galvanized wire with the running rigging of manila. There are four shrouds at the foremast and three shrouds at the mainmast, and one each for fore and main topmast. She has mainsail and one foresail and forestaysail of No. 2 canvas. Two topsails of No. 8 canvas. One main staysail of No. 6 canvas. Two fore topmast staysails of No. 8 canvas, one jib No. 4 canvas, one flying jib of No. 5 canvas, jib topsail No. 6 canvas and the gaff topsail No. 8 canvas. She has two Bower anchors of 770 lbs and one Stream anchor of 330 lbs. of the Balldt pattern; with 180 fathoms of one inch chain and 125 fathoms of four inch manila.

The vessel is equipped with one 23 foot surf boat and one 16 foot yawl. She is also equipped with a Hyde windlass three-eighths inches diameter spindle, with a Hyde screw steerer and two patent and a half inch pipe Woodin & Little pumps. The awnings are two in two pieces, covering the entire deck divided at the mainmast.

The vessel is equipped with a brass binnacle lamp, spirit compass on deck, bell with the schooner's name, side and anchor lights, hand and deep-sea lead and lines, taff rail log, six deck buckets, side ladder, one ensign, burgee, galvanized tanks to contain 1,000 gallons of water with suitable hand pump, cabin and galley furniture.

PAY OF MARINE ENGINEERS IN NEW SOUTH WALES

Consul-General John P. Bray, of Sydney, reports that the principal feature in the new agreement between the New South Wales coastal steamship owners and the Australian Institute of Marine Engineers is that in computing wages all steam cylinders on board a vessel, both above and below deck, are taken into consideration. The amended monthly rates of wages, which in some cases are increases, are as follows:

Nominal horsepower.	Engineers' monthly wages.		
	Chief.	Second.	Thrd.
Within 35	\$ 78	.....	.....
35 to 55	87	.....	.....
55 to 100	97	\$78	\$68
100 to 150	102	78	68
150 to 200	107	83	68
200 to 250	117	87	73
250 to 300	121	87	73
350 to 400	134	92	78
450 and upward	141	97	78

Engineers of all ranks shall be entitled to a fortnight's holiday each year with full pay. Steamers over 66 nominal horsepower running a distance of over 400 miles shall carry three engineers, unless under exceptional circumstances satisfactory to the institute. The right of the steamship owners' association to employ drivers and engineers who are not members of the institute is recognized, but the owners agree to consider giving preference of employment to members of the institute.

The Osaka Spinning Company of Japan, plans to print cotton flannels and other textiles, and it is expected that other companies will follow the example. It is stated that the weaving industry of Japan has made so much progress, that cotton prints and cotton satins are not inferior to imported goods in price and quality, and they no longer require government protection.

MARINE INTELLIGENCE

The United States Civil Service Commission announces that a non-educational examination for the position of sailmaker in the Quartermaster's Department at Large, at a salary of \$2 per day, will be held in San Francisco, California, on December 22, 1909.

For further information, and Application Form 1093, apply to the Local Secretary, Quartermaster's Department, or to the Secretary of the Twelfth Civil Service District, room 241, Post Office Building, San Francisco, California.

The United States Civil Service Commission announces that the following examinations will be held in San Francisco, California, on January 5, 1910:

Junior Engineer Draftsman, Engineer Department at Large, salaries ranging from \$1,000 to \$1,500 per annum.

First-class Steam Engineer, National Museum, Washington, D. C., salary \$1,600 per annum.

For application blanks and further information concerning these examinations address Secretary, Twelfth Civil Service District, room 241 Post Office Building, San Francisco, California, giving the name of the examination.

Office of U. S. Lighthouse Inspector,
Twelfth District.

813 Mutual Savings Bank Building,
704 Market Street.

San Francisco, Cal., Nov. 19, 1909.

Notice to Mariners—Humboldt Bar, California. (List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 37.)

Notice is hereby given that Outside Bar Bell Buoy, Humboldt Bar, California, heretofore reported adrift, was replaced November 17, in 63 feet of water, about midway and in line between Humboldt Outside Bar Whistling Buoy and North Jetty Outer End Buoy.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.

Inspector, Twelfth Lighthouse District.

Office of U. S. Lighthouse Inspector,
Twelfth District.

813 Mutual Savings Bank Building,
704 Market Street.

San Francisco, Cal., November 24, 1909.

Notice to Mariners—East Brother Island, California. (List of Lights and Fog-Signals, Pacific Coast, 1908, No. 41, page 20, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 29.)

Notice is hereby given that the fog-signal at East Brother Island Light Station, California, is working irregularly, and mariners are cautioned not to rely upon it until repairs can be made, when due notice will be given.

By order of the Lighthouse Board.

W. G. MILLER, Commander, U. S. N.

Inspector, Twelfth Lighthouse District.

Commerce of the Argentine Republic for 1908 includes goods sold to Great Britain \$78,000,000, bought from \$93,000,000; to Germany \$35,000,000, and from \$38,000,000 to the United States \$13,000,000 and from \$35,000,000. There is a marked preference for American manufactured goods in the Republic.

The oversea exports from Sidney during the six months ending June 30, included 3,002,713 pairs of hares and rabbits, 7,766,975 feet of timber, 1,863,995 centals of wheat, 470,461 carcasses of frozen mutton, 876,371 ingots of copper, 40,408 ingots of tin, and 372,328 bales of wool.

Whaler Olga Lost in North—The gasoline whaler Olga, which left San Francisco on a whaling and trading venture several months ago, has been wrecked at the mouth of the Snake River.

NAVY DEPARTMENT BUREAU OF CONSTRUCTION AND REPAIR November 10, 1909 Vessels Under Construction, United States Navy

Name of Vessel	Speed Knots	Building at	1909 per cent of com- pletion	
			Oct. 1	Nov. 1
BATTLESHIPS				
SOUTH CAROLINA	18 1/2	Wm. Cramp & Sons	99 0	99 9 a
DELAWARE	21	Newport News S. B. Co.	96 8	97 4
NORTH DAKOTA	21	Fore River S. B. Co.	95 2	95 6
FLORIDA	20 1/4	Navy Yard, New York	33 7	38 3
UTAH	20 1/4	New York S. B. Co.	44 4	50 0
WYOMING	20 1/4	Wm. Cramp & Sons		0 0
ARKANSAS	20 1/2	New York S. B. Co.		1 0
TORPEDO BOAT DESTROYERS				
SMITH	No. 17	Wm. Cramp & Sons	98 4	99 4
LAMSON	No. 18	Wm. Cramp & Sons	91 4	92 8
PRESTON	No. 19	New York S. B. Co.	94 8	95 0
REID	No. 21	Bath Iron Works	94 3	100 0 b
PAULDING	No. 22	Bath Iron Works	36 3	46 1
DEAYTON	No. 23	Bath Iron Works	30 5	37 0
ROL	No. 24	Newport News S. B. Co.	64 6	66 4
TERRY	No. 25	Newport News S. B. Co.	64 9	66 8
PERKINS	No. 26	Fore River S. B. Co.	56 0	59 3
SURREY	No. 27	Fore River S. B. Co.	54 4	58 1
BURROWS	No. 28	New York S. B. Co.	29 6	34 2
WARRINGTON	No. 29	New York S. B. Co.	29 2	34 2
MAYKANT	No. 30	Wm. Cramp & Sons	47 3	53 0
TORP. B. DEST.	No. 31	Wm. Cramp & Sons	51 5	54 6
TORP. B. DEST.	No. 32	Newport News S. B. Co.	1 1	3 2
TORP. B. DEST.	No. 33	Bath Iron Works	4 0	7 9
TORP. B. DEST.	No. 34	Fore River S. B. Co.	3 2	5 2
TORP. B. DEST.	No. 35	New York S. B. Co.	5 3	8 2
TORP. B. DEST.	No. 36	Wm. Cramp & Sons	1 7	3 4
SUBMARINE TORPEDO BOATS				
STINGRAY	No. 13	Fore River S. B. Co.	99 1	100 0 c
TARPON	No. 14	Fore River S. B. Co.	99 1	100 0 d
BONTIA	No. 15	Fore River S. B. Co.	99 0	100 0 e
SNAPPER	No. 16	Fore River S. B. Co.	99 0	99 3
NARWHAL	No. 17	Fore River S. B. Co.	98 9	100 0 f
GRAYLING	No. 18	Fore River S. B. Co.	98 5	100 0 g
SALMON	No. 19	Fore River S. B. Co.	80 7	87 0
CARP	No. 20	Union Iron Works	6 0	16 0
BARRACUDA	No. 21	Union Iron Works	6 1	16 1
PICKEREL	No. 22	The Moran Co.	10 7	13 0
SKATE	No. 23	The Moran Co.	10 6	13 1
SKIPJACK	No. 24	Fore River S. B. Co.	7 6	8 4
STURGEON	No. 25	Fore River S. B. Co.	7 6	8 4
THRASHER	No. 26	Wm. Cramp & Sons		0 0
TUNA	No. 27	Newport News S. B. Co.	3 8	7 7
SEAL	(Lake)	Newport News S. B. Co.	26 2	28 2
COLLIERS				
PROMETHEUS		Navy Yard, Mare Island	99 0	99 0
CYCLOPS		Wm. Cramp & Sons	35 5	40 9
No. 8		Maryland Steel Co.		(No report)

a	Delivered	Phila.	Yard	Nov. 5, 1909.
b	Delivered	Boston	Yard	Oct. 27, 1909.
c	Delivered	Boston	Yard	Oct. 16, 1909.
d	Delivered	Boston	Yard	Oct. 14, 1909.
e	Delivered	Boston	Yard	Oct. 20, 1909.
f	Delivered	Boston	Yard	Oct. 7, 1909.
g	Delivered	Boston	Yard	Oct. 11, 1909.

NOTICES OF PURCHASES

Navy Department,
Bureau of Supplies and Accounts,
Washington, D. C., Nov. 5, 1909.

This Bureau will open bids in Washington, on the dates stated below, for the following material. Bidders interested therein should fill out the enclosed application card, giving the schedule numbers desired, and forward same to the Bureau without delay. Applications will be filled as soon as the schedules are received from the Public Printer. Schedules can also be obtained upon application to the Navy Pay Office nearest each navy yard:

OPENING DECEMBER 7, 1909.

MISCELLANEOUS.

Article.	Quantity.	Delivered at navy yard.	Sch.
Boats and guts, steel,	Miscellaneous.	Puget Sd., Wash.	1921
Covering, pipe, magnesia-4,000 feet		Puget Sd., Wash.	1923
asbestos, sectional.			
Drum, Japan,	500 gallons.	Mare Island, Cal.	1922
Glass, plate, etc.	Miscellaneous.	Mare Island, Cal.	1924
Hardware and tools	Miscellaneous.	Mare Island, Cal.	1921
Hose, garden	2,000 feet.	Puget Sd., Wash.	1919
Lead, sheet	22,500 pounds.	Mare Island, Cal.	1922

PIPE AND PIPE FITTINGS, TUBING, ETC.

Bibbs, cock, hose, etc.	Miscellaneous.	Mare Island, Cal.	1922
Fittings, gauge glass	128 sets	Mare Island, Cal.	1923
Pipe, copper	12,550 pounds	Mare Island, Cal.	1923
Pipe, lead	6,100 pounds	Mare Island, Cal.	1922
Tubing, brass	6,090 feet	Mare Island, Cal.	1922
Tubing, copper	900 pounds	Puget Sd., Wash.	1923

STATIONERY, ETC.

Article.	Quantity.	yard.	Delivered at navy Sch.
Bands, rubber	Miscellaneous	Puget Sd., Wash.	1925
Paper, blotting	5,000 sheets	Puget Sd., Wash.	1925
Paper, Nos. 53 and 59	250 reams	Puget Sd., Wash.	1925
Pencils, lead, black	Miscellaneous	Puget Sd., Wash.	1925
Ribbons, typewriter	600	Puget Sd., Wash.	1925
Stationery	Miscellaneous	Puget Sd., Wash.	1925
Tags, shipping	Miscellaneous	Puget Sd., Wash.	1925

MACHINE TOOLS.

Drill press, back-geared 1	Mare Island, Cal.	1900
power feed, 21 inches		
Precision lathe, 8 inches	Mare Island, Cal.	1900

CONSTRUCTION, REPAIRS, ETC.

Laying porcelain tiles	Labor and ma-Puget Sd., Wash.	1901
terial.		
Repairing "Kit Carson"	do. Las Animas, Colo.	1902
house.		

OPENING DECEMBER 14, 1909.

MISCELLANEOUS.

Article.	Quantity.	yard.	Delivered at navy Sch.
Blocks, duplex and differential	28 duplex 84 differential	Mare Island, Cal.	1958
Chain, black and galvanized iron	2,325 fathoms	Mare Island, Cal.	1956
Cleaning and painting	Repairs	Mare Island, Cal.	1927
Building No. 123.			
Cleaners, tube, pneumatic	12	Mare Island, Cal.	1960
Hydrants	50	Mare Island, Cal.	1955
Lavatories	12	Mare Island, Cal.	1959
Lead, pig, No. 1	15,000 pounds	Mare Island, Cal.	1959
Sheaves, galvanized iron	680 pounds	Mare Island, Cal.	1958
Steel, medium, flat	10,100 pounds	Mare Island, Cal.	1959
Trolleys, I-beam	30	Mare Island, Cal.	1958
Trucks or drays	2	Mare Island, Cal.	1926

OPENING DECEMBER 14, 1909—Continued.

HARDWARE AND TOOLS.

Article.	Quantity.	yard.	Delivered at navy Sch.
Bolts and nuts, steel	12 sets	Puget Sd., Wash.	1958
Butts, cast-bronze	250 pairs	Mare Island, Cal.	1957
Drills, twist, taper shank	Miscellaneous	Puget Sd., Wash.	1958
Fixtures, stateroom	12	Mare Island, Cal.	1959
Hardware and tools	134 sets	Mare Island, Cal.	1958
Hardware	Miscellaneous	Mare Island, Cal.	1957
Jacks, hydraulic	12	Mare Island, Cal.	1958
Lock sets, bronze	134 sets	Mare Island, Cal.	1957
Nuts, composition	1,050 pounds	Puget Sd., Wash.	1960
Vises, machinists	48	Mare Island, Cal.	1958

OPENING DECEMBER 21, 1909.

MACHINE TOOLS.

Grinder, surface	1	Mare Island, Cal.	1954
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OPENING DECEMBER 21, 1909.

MISCELLANEOUS.

Article.	Quantity.	yard.	Delivered at navy Sch.
Board, paste and stencil	6,000 pounds	Mare Island, Cal.	1989
Chains, boat, galvanized	20	Mare Island, Cal.	1988
Hose, steam	800 feet	Puget Sd., Wash.	1995
Hose, unlined, linen	3,000 feet	Puget Sd., Wash.	1987
Oakum	12,000 pounds	Mare Island, Cal.	1992
Oars, spoon, spruce	48	Puget Sd., Wash.	1992
Refrigerators	6	Puget Sd., Wash.	1993
Whistles, brass	50	Mare Island, Cal.	1995

HARDWARE AND TOOLS.

Blades, hacksaw	500 dozen	Puget Sd., Wash.	1990
Files	Miscellaneous	Puget Sd., Wash.	1990
Files	Miscellaneous	Mare Island, Cal.	1990
Forges, rivet, portable	6	Puget Sd., Wash.	1990
Hardware	Miscellaneous	Mare Island, Cal.	1995

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METALS

Brass, sheet	4,150 pounds	Puget Sd., Wash.	1994
Copper, sheet	1,400 pounds	Puget Sd., Wash.	1994
Lead, sheet	4,000 pounds	Puget Sd., Wash.	1990
Steel bars and plates	Miscellaneous	Mare Island, Cal.	1998

OPENING DECEMBER 21, 1909—Continued.

PIPE, FITTINGS, TUBING, ETC.

Article.	Quantity.	yard.	Delivered at navy Sch.
Covering, pipe, sectional	2,000 feet	Mare Island, Cal.	1995
magnesia.			
Pipe, lead	6,900 pounds	Puget Sd., Wash.	1990

LUMBER AND BUILDING MATERIAL.

Lumber	Miscellaneous	Mare Island, Cal.	1986
Redwood	Miscellaneous	Mare Island, Cal.	1986
Roofing, corrugated iron	Miscellaneous	Mare Island, Cal.	1987
and ridge coping.			

PAINTS, OILS, CHEMICALS, ETC.

Cement, marine	2,000 pounds	Mare Island, Cal.	1991
Enamel, black	100 gallons	Mare Island, Cal.	1991
Remover, paint and varnish	300 gallons	Puget Sd., Wash.	1991
Varnish, asphaltum	400 gallons	Mare Island, Cal.	1991

OPENING DECEMBER 28, 1909.

MACHINE TOOLS.

Planer, matcher, and mold-1.....	Mare Island, Cal...	1997
er.		
Saw, power, combination.1.....	Mare Island, Cal...	1997
Woodworker and borer, 1.....	Mare Island, Cal...	1997
Universal.		

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PACIFIC MERCHANT MARINE

SATURDAY, DECEMBER 4, 1909

VOL. II

NO. 23

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To Rehabilitate the American Merchant Marine

Shipping Subsidies of Japan

Editorial

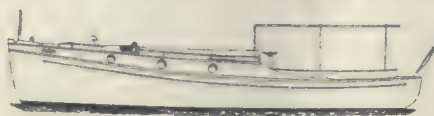
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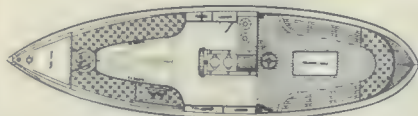
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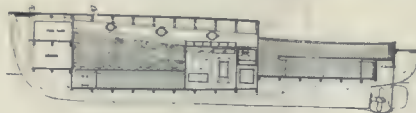
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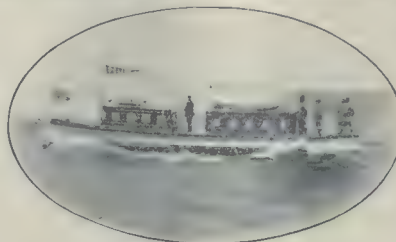
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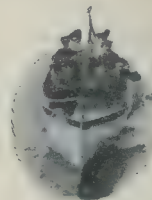
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Pacific Merchant Marine

Volume II

SATURDAY, DECEMBER 4, 1909

Number 23

Impracticability of Free Ships to Rehabilitate the American Merchant Marine

Whatever may be necessary to give security to an American merchant marine, it is evident that the initial step of that security is yet to be taken. Experience indicates that the methods to be adopted will be more or less experimental; that in the inauguration of a movement we have yet to obtain favorable or unfavorable results. In view of the universal demand for and knowledge of the importance of a merchant marine, compared with the innumerable objections raised to the means of acquirement, the tentative principle may be commended to the limits of its results. After the many years of discussion on this subject from an inexhaustible means of research, including the rapid increase in the merchant tonnage of foreign nations, it appears as a most remarkable phase of the question in the United States that many superior minds of American progress remain steadfast to certain methods of rehabilitation long since rejected by the founders of our present and indicated perpetual prosperity.

Many of the theories advanced give the reader an impression of good faith until such theory is investigated and reduced to either impracticability or the dog-in-the-manger principle. The continuous, unbroken line of American prosperity offers many parallel lines of future progress. Unfortunately, however, this does not apply to the subject of a merchant marine. Advancement occurred at one time under a commercial policy that is obviously impracticable, yet compatible with present conditions, acquired by the humane, enterprising and diplomatic course which gave to the United States the inherent right of industrial supremacy. This condition, however, has yet to receive the seal of the common good and perpetuity.

It is obvious that previous periods in American history offer the means to establish the truths of a merchant marine. We must also conclude that we are duty-bound to determine a maritime policy necessarily American; that, unlike the other industries, commerce is a universal gift, governed by the immutable law of supremacy to those best qualified to assume, and who appreciate its importance as a national resource.

In following the arguments for and against an American merchant marine, the spontaneous offerings (real or fancied) of the experience of the commercially ambitious foreign nations is very much in evidence. However dissimilar the government, the state of society, the multiplicity of our limited resources, the extent of the main or noncontiguous possessions thereof, comparison is invariably made with the United States, different in the

extreme and in detail to the historical conditions, past or present, of any other country. The inconsistency is not presumptive; it is a notorious fact, that has never contributed one iota to American progress. To the contrary, many of the depreciating effects upon American industries may be traced to the comparison.

Almost every age of mankind has traveled the highway of an ideal civilization. The respective ages have almost invariably viewed the term from respectively different standpoints. Religion, conquest, art, science, literature and many other ideals were formed and completed consistent with the various periods. These achievements bring us to the perfection of American liberty. Have we gained this inheritance by comparison with any other condition of mankind? Has any other nation contributed to the triumph? Have other nations been idle in the meantime, or failed to recognize the infinite power of Americanism? Have foreign nations been driven to the expedient of an offset to the susceptibilities of American liberty? And if so, what is being used as an element of destruction to the onward peaceful march of American progress? The following authentic statement is significant, if not a complete answer to several of the above questions.

Mail subsidies, admiralty subventions and navigation bounties paid during 1908 by foreign nations to maintain their respective merchant marine:

Great Britain and Colonies	\$ 9,689,384
France	13,423,737
Japan	5,413,700
Italy	3,872,917
Spain	3,150,012
Austria-Hungary	2,984,530
Germany	2,301,029
Russia	1,878,328
Norway	1,102,143
Netherlands	880,011
Sweden	277,752
Denmark	145,000
Belgium	55,970
Portugal	50,000
Chile	253,195
Mexico	75,000
Egypt	54,512
Brazil	1,300,000
Total	\$46,896,700

During the year 1908 the United States paid for carrying the mail in American steamers \$1,467,255; and to foreign vessels \$1,228,032. (To complete the analogy we beg to repeat.) Less than 3 per cent of the total tonnage of the United States is engaged in the foreign trade. Ninety-two per cent of the imports and exports of the United States was carried in foreign bottoms during the year 1908. Of a total of 3,727 vessels of a registered tonnage of 11,357,179, one vessel of 626 registered tons carried the American flag through the Suez Canal in 1908. The 16 American battleships participating in the celebrated cruise were served with coal in home and foreign ports by foreign vessels. There has not been a single vessel built in the United States for the past six years to engage in the foreign trade. Eighty-six per cent of American tonnage operates between American ports under the protection of the coastwise navigation laws, which exclude foreign vessels from the trade. One-half of the total tonnage of the American merchant marine is engaged in the traffic of the Great Lakes, as a result of which freight rates on wheat have been reduced from 15 cents per bushel in 1895 to 1 cent per bushel in 1908. The United States pays \$300,000,000 annually to foreign vessels for the transportation of American goods. The United States has no direct communication with many of the foreign countries, except in foreign bottoms. To illustrate fully, a shipment of American goods consigned to Brazil would leave the United States on a French vessel, cross the Atlantic to France, from thence to the Brazilian port. All United States mail to and from South American ports is invariably routed by way of a European country.

With this brief and formidable statement of facts, there is an abundance of material to demonstrate the necessity of an American merchant marine. The context demonstrates that the method of building it, the means that shall support it, and the benefits to be derived from it by the American people as a whole should be as distinctively American as the signatures on the Declaration of Independence.

The American people are familiar with history from the inception (1517) of a canal on the Isthmus of Panama, and how President U. S. Grant first advocated that it should be an American canal, under American control; the history of the subject during the interim between the administration of President Grant and that of the standard-bearer of Americanism, when President Roosevelt attacked the American trusts and simultaneously raised the American flag in the Canal Zone, would connect a series of events and an influence in the United States that compose the alphabet of an American merchant marine. (We regret at this time to set aside the series of events and influence referred to for a future article.)

Beginning with the decline of the American merchant marine in 1861, the American people have invariably witnessed party platforms constructed of an abundance of ship material. In adverse ratio to the original these materials have decayed with the close of the respective campaigns. Previous to election the people are disposed to believe the candidate advocating free ships as a means of rehabilitating the merchant fleet. In the later campaigns the innumerable questions legitimately involved are sufficient to obscure the inconsistencies of the candidate who advocates free ships to rehabilitate the merchant marine, and a protective tariff to protect American industries. Not infrequently a candidate will advocate that foreign ships be admitted to American

registry by paying a certain duty, to be determined by Congress, prohibiting the ships so registered to participate in coastwise traffic; that they be confined exclusively to the foreign trade.

From a practical point of view free ships or dutiable ships are one and the same thing; neither one of which, however, can determine the question involved. The Merchant Marine Commission, appointed by act of Congress April 28, 1904, proceeded with their duty in a most systematic manner. Sessions of the commission were held in all the principal parts of the country, including the Atlantic and Pacific coasts, the Great Lakes and the Gulf of Mexico. The efficiency of the commission was manifested in their successful efforts to open every conceivable avenue of investigation on the subject. The final report of the commission shall remain an intensely interesting part of American history, and a tribute to the statesmanship of its members. Clothed with the power to summon such residents of the United States who were best qualified to express an opinion upon this important subject, the commission were extremely impartial, and the courteous treatment of all those who appeared before them is a noteworthy feature of their inquiries. Bankers, mechanics, manufacturers, ship owners, merchants, lawyers, shipbuilders, and many others, answered the invitation to appear before the commission, who also carried their inquiries through correspondence to many that were unable to appear in person.

The official letter of the commission (one of many others on kindred subjects) regarding free ships was circulated freely among many interested people, and answered consistent with those interests, based on the previous statistical text of this article. If the most disinterested American citizen would read the questions and submit his answers thereto from a purely practical standpoint, he will have solved the question of free ships, or dutiable ships, for all time, and qualify himself to discriminate from an American standpoint on the sincerity of those who advocate free ships as a means of acquiring a merchant marine. The letter of the commission follows:

The Merchant Marine Commission,
Washington, D. C.

Dear Sirs: It is stated in the report of the Commissioner of Navigation for 1902 that you are the owners, in whole or in part, of several steamships foreign built and now flying foreign colors.

The Merchant Marine Commission is charged by Congress to ascertain, if possible, the best method of increasing American tonnage in the over-sea trade. Will you kindly state, for the information of the Commission:

1—Whether you would, if so authorized by Congress, transfer your foreign-built ships to American registry to engage exclusively in the foreign trade, but to remain without subsidy, differential duty, or any other Government encouragement?

2—Whether you would transfer your foreign-built steamships to American registry if they were admitted to all or part of any subsidy or differential duty granted by our Government, but were still confined to the foreign trade?

3—Whether you would transfer your foreign-built steamships to American registry if no subsidy or differential duty were granted, but if the ships were allowed to enter the coastwise trade on the same terms as other American vessels?

4—Whether you would transfer your foreign-built ships to the American flag for foreign trade alone if you were required to build an equivalent tonnage in this country?

5—Whether, if your foreign-built ships were admitted to American registry, you would also wish to have the privilege of employing alien officers and be exempted from the food scale required by United States law?

Very truly yours,
WINTHROP L. MARVIN, Secretary.

It is not difficult to surmise the consensus of opinion contained in the replies to this communication. It would

be less difficult to foretell the result of an election if the adoption of these questions as a law was submitted to a vote of the American people. It would be extremely less difficult to know the outcome of the election of a candidate to Congress that would change the phraseology of the questions, and retouch them, as it were, with campaign highlights. The over-zealous candidate would proceed to inform his hearers that any other form of Government aid to a merchant marine is an incipient form of robbery of the United States Treasury; that it was in the interest of a ship-building trust in the United States; that the ship-owners trust would control the bulk of every Government appropriation. These, and many other fallacious arguments, have been, and are still, in use by the advocates of free ships. Color is given to the arguments from the fact that American manufacturers have been known to sell steel plates and shapes for ship-building to a foreign consumer at a considerable less cost than the same material could be purchased by the consumer at home. Whatever may have been the irregularities concerned in the foregoing or similar transactions, the Navigation Laws of the United States have forestalled the possibility of the formation of a ship-building trust in this country, as applied to vessels built for the foreign trade. Sections numbered 236-237 of the Navigation Laws provide as follows:

236—"All materials of foreign production which may be necessary for the construction of vessels built in the United States for foreign account and ownership or for the purpose of being employed in the foreign trade, including the trade between the Atlantic and Pacific ports of the United States, and all such materials necessary for the building of their machinery, and all articles necessary for their outfit and equipment, after the passage of this act, may be imported in bond under such regulations as the Secretary of the Treasury may prescribe; and, upon proof that such materials have been used for such purposes no duties shall be paid thereon. But vessels receiving the benefit of this section shall not be allowed to engage in the coastwise trade of the United States more than two months in any one year, except upon the payment to the United States of the duties of which a rebate is herein allowed. Provided, that vessels built in the United States for foreign account and ownership shall not be allowed to engage in the coastwise trade of the United States.—Revised Statutes, 2513.

237—"All articles of foreign production needed for the repair of American vessels engaged in foreign trade, including the trade between the Atlantic and Pacific ports of the United States, may be withdrawn from bonded warehouses free of duty, under such regulations as the Secretary of the Treasury may prescribe."—Revised Statutes, 2514.

The American people are sufficiently familiar with the means of forming and the essential elements of support of the American trusts to be convinced that the foregoing sections are not conducive to trust construction and maintenance in the United States; and which obviously regulates the ship-building trust so frequently quoted by free-ship advocates.

The excessive cost of ship building is a favorite argument of free ships. We are told that ship-yard wages in the United States are double the amounts paid in foreign countries. Admitting that such is the case, and also that an American-built vessel costs twice the amount of a foreign ship, to what extent would free ships benefit the American workmen? Would it be reasonable to assume that while we maintain a protective tariff to benefit the American people, that we should remove this protection from the ship-building industry? Reduce the American workmen engaged therein to the level of their foreign competitors, or pass the ship-building industry of the United States over to foreign countries. The ridiculous argument has been made that the increased amount of tonnage arising from the free ship policy would ne-

cessitate repair work sufficient to keep the American workmen steadily employed. The idea is a travesty on protection, and evidently the far-fetched argument of the forlorn hopes of foreign shipping interests.

The questions propounded by the Merchant Marine Commission, considered in conjunction with the sections quoted from the Navigation Laws, indicates the impracticability of trust control of ship-building material to be used in the foreign trade. The ship-building industry is one of great scope, embracing, as it does, about as many different lines of natural products and manufactures, and requiring for its successful operation a proportionate number of people and amount of capital as the largest single industry of mankind. While it is true that these industries are in no wise dependent upon the building of a merchant marine for the over-sea traffic, the phenomenal increase of American tonnage engaged in the coastwise trade contributes in a marked degree to the support of many of the most important American industries, all of which are amply and justly protected by the tariff. The one great product of these industries, the ship, that composes the combined results of many protected industries, the one and only tool, as it were, that can be used in the development and continued maintenance of foreign commerce, is thrust upon the American people by the free-ship advocate as a means of building a United States merchant marine.

If the free-ship policy is the palliative of a merchant marine, the Navigation Laws provide an elegant means of engaging in the foreign trade, which is open to the inhabitants of the world. The idle tonnage of the world is a still more economical method of entering into this trade, but the American advocate of free ships does not avail himself of either method; he uses the dark-lantern of free ships to remove from the ship-building industry the protection necessary to American industrial supremacy from those industries which today are depending on foreign markets, that the United States must inevitably acquire and hold, under a system distinctively American as the goods produced.

There is nothing in the history of an American merchant marine to indicate the existence of a ship-building trust in the United States. This statement, however, does not eliminate the trust possibilities when applied to the various materials that enter into the ship-building industry. The accuracy of this statement has no limitations. The exponent of free ships should view his opinion in the light of facts, of events and results that should accrue to the benefit of the United States and the population as a whole.

The following figures, taken from the report of the Bureau of Statistics, will show the tonnage of the merchant marine of the United States in 1855 and in 1908:

	Foreign Trade.	Coastwise Trade.	Fisheries.	Total.
1855.....	2,348,358	2,543,255	320,388	5,212,001
1908.....	930,413	6,371,862	63,170	7,365,455

The decline of the American merchant marine began in 1855 and continued to the present time. In the former year 45 per cent of the total tonnage of the United States was engaged in the foreign trade and 55 per cent in the coastwise trade. Subsequent revision of the coastwise Navigation Laws enabled the United States to gain 41 per cent in the total amount of tonnage from 1855 to 1908; but 86 per cent of the increased tonnage is engaged in the coastwise trade, and 14 per cent in the foreign. Do these figures indicate the existence of a ship-building

trust in the United States? It is a remote possibility in the mind of the free-ship advocate and an impossibility to those who build ships and whose business it is to know the free-ship material clauses of the Navigation Laws.

The argument of free ships is that the ship-building trust controls the building of the coastwise tonnage. In that event the American people should be grateful; at least they are reaping a harvest from the marvelous decrease in the coastwise water-borne freight rates; and the free-ship advocate should learn and be true to the tenets of free ships, which at its best could be absolutely worthless as a single step in the rehabilitation of a merchant marine.

The ships of the Navy have been cited as an example of the existence of a ship-building trust. Emphatically no, if viewed from the standpoint of efficiency under the recent test in the 'round-the-world cruise, and decidedly no, as demonstrated by the anxiety and haste of the world's naval powers to expend twice the cost to build a larger, but no more effective battleship than is owned by the United States. Naval construction in all countries is surrounded with every element of national pride, and to deal in generalities by applying the free-ship argument as a criticism of naval construction is a rejection of the fundamental principle of national prosperity and security; it is neglect of the pruning process, by which the most desirable product is assured. No better means of applying the pruning process has come to our notice than the figures furnished by Mr. G. W. Dickie, one of the most efficient naval architects and constructors in this country. The figures furnished by Mr. Dickie are based on the construction of a steel steamer of 4,304 tons gross, and 2,804 tons net, for which prices were obtained from ship-building firms in Great Britain and on the Atlantic and Pacific coasts of the United States.

	Values in United States Money.		
	Great Britain.	Atlantic Coast.	Pacific Coast.
Steel material in hull at mills	69,399	76,131	76,131
Freight to ship plant.....	2,890	7,768	31,074
Labor on steel material.....	46,246	83,243	92,492
Machinery	37,500	51,000	60,000
Woodwork and equipment...	18,700	24,500	27,000
Labor on woodwork, etc.....	16,000	24,000	28,000
Total	190,735	266,642	314,697

The free ship advocate is evidently the only person privileged to know the method of forming a shipbuilding trust from the items mentioned in the table; it would require a wide stretch of imagination to do so by a combination of the different interests involved. The pruning process, then, is the correct method of solving the problem, and the impracticability and impossibility of a shipbuilding trust is obvious. The above table furnishes a remarkable amount of information on the subject of free ships. We find that an Atlantic Coast built vessel cost 39 per cent, and a Pacific Coast vessel 65 per cent more than a similar vessel built in England. The American ship owner wanting to build a vessel for the foreign trade is protected by the navigation laws to the extent that he may place his order with an American shipbuilding firm and obtain a full rebate of the duty as charged by the tariff, or he may place his order in a foreign country and take advantage of the reduced cost of the vessel, and confine his operations to the foreign trade. Every dollar expended for the foreign vessel has been taken from the American people to enrich the foreign shipbuilder, and

represents an amount of money forever lost to the United States. Assuming that Congress would permit the foreign built vessel to engage in the coastwise traffic, what would remain of the American shipbuilding industry? It would depend absolutely upon a 39 per cent difference in the cost of an American and a foreign built vessel.

By virtue of the navigation laws of the United States the American built vessel retains a staple value, less the percentage of depreciation and amount of insurance paid on the advanced price. The 39 per cent difference in the present case, amounting to \$75,907, allowing 5 per cent insurance and 5 per cent depreciation on the difference in cost, the American vessel has cost, per year of operation, the sum of \$7,590; and the vessels built, owned and subsidized in foreign countries are excluded from competition with the American vessel in the coastwise trade. Is it reasonable to advocate that the American shipowner should be protected and that the American shipbuilder should not be?

The American institution provides that the American shipbuilder shall pay a higher rate of wages than obtains to his foreign competitor, and such higher rate should be considered in detail, as applied to each stage of development of the raw material, which figures 10 per cent on the required amount of steel that the shipbuilder also pays 1.68 per cent more for transporting materials to his shipbuilding yard, than the English builder, and that the labor of actual construction of the steelwork costs the American builder 80 per cent and the woodwork 50 per cent more than his foreign competitor.

We must conclude that the free ship policy has an ulterior motive, that it is misleading and immaterial to the rehabilitation of an American merchant marine, which can and should be acquired by American methods and operated upon American principles. We fail to see the consistency of beginning the work of reconstruction at the point where other nations have retired by adopting tentative and unproductive measures. The subject should be considered from a purely American standpoint that contains every element of American progress and perpetuity.

STATE HARBOR COMMISSION ESTABLISHES FORBIDDEN ANCHORAGE

The Board of State Harbor Commissioners of California, at a recent meeting, established the forbidden anchorage area within the port of San Francisco as follows: On the seaward side by a straight line from Point Bonita to a point on the shore of South Bay, one-half statute mile to the seaward of the large cable sign at Baker's Beach; on the inside by a straight line running from a point in Bonita Cove, one-half statute mile from the Fort Barry wharf, to a point on the shore in South Bay, one-half statute mile inside, or north by north-east of the large cable sign at Baker's Beach.

THE YACHT TAX CAUSES LITIGATION

Suits have been filed in the U. S. District Court for the Southern District of New York to collect the \$7 per ton tax or 35 per cent ad valorem duty on yachts built abroad and owned by American citizens. In all, thirty-five suits have been filed for amounts on James Gordon Bennett's *Lysistrata* of \$13,601 to \$98 charged to H. R. Wolcott on the yacht *Salva*. The amounts involved aggregate \$112,000. Thus far the Government has collected about \$32,000 on account of the yacht tax.

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EDITORIAL

By the Constitution of the United States, Congress is given power "To regulate commerce with foreign nations, and among the several States, and with the Indian tribes." This is interpreted to vest in Congress exclusive power to regulate shipping upon the navigable water of the United States, and as to American vessels upon the high seas. Congress has a right to believe that it has adjusted certain parts of this clause to the satisfaction of and for the best interests of the American people as a whole. Lacking the ability of Congress to interpret and adjust matters according to the true intent and meaning of the clause in its entirety, the people, again considered as a whole, are content in their discontent with what they have received through Congress for the past sixty years on this question.

The clause referred to, in Article 1, Section 8, was contained in the original Constitution of the United States, ratified in convention of Representatives of twelve of the thirteen States comprising the Union, on the 17th day of September, 1787. No change has ever been proposed, or amendment made, to the clause as contained in the original manuscript; the latter then and now acknowledged as the most important document of organic law in existence.

An ordinary knowledge of the Constitution of the United States perfectly comprehends the connection, meaning and consequences of adherence to first principles. The science of political economy fails to prove comparative progress during the first sixty years of American growth, by experimenting with or otherwise departing from the spirit of the Constitution.

During the sixty-year period just mentioned the wealth of the United States was made known to and attracted the people of the world; by the instruments of and means of exchange with other countries; instruments signifying natural resources and means of ex-

change American ships for over-sea transportation. Except for the absence of American ships conditions have remained identical up to and including the present time. In place, however, of estimating the wealth of the United States at the present time from the standpoint of natural resources and American ships, the calculation is made on a money basis.

If a calculation on this basis has merit, it consists of the infinite ramifications with which concentrated money has been surrounded; and thus, money is now considered as the wealth of the country, in preference to the natural resources that created it. Money as a natural resource would have no greater value than wheat, iron, cotton or any other product of the soil; but the possibilities of manipulating money is infinitely greater than the entire list of all other natural resources combined, and the world maintains it as representative of its wealth. The fact of money being a medium of exchange is the one question in political economy that has developed more rapidly than was ever anticipated, and the country faces the issue of the wealth of the country passing into the hands of the individual, and slowly but surely concentrating with each determined effort of monied interests.

The whole entire system of natural resources of the world are indirectly connected, and react one upon the other. Worked out on the lines of their own salvation, the same results obtain as we have endeavored to show in the matter of money, except that in the absence of the influence of money (genuine and artificial) a more equitable distribution of the wealth of the country prevails, and the concentration of such wealth accrues to the country of greatest natural resource; and the enterprise of its people in creating markets for and disposing of their products.

SHIPPING SUBSIDIES OF JAPAN

Bearing on Trans-Pacific Trade of United States

In the following report from Hongkong, Vice-Consul-General Stuart J. Fuller deals with the subsidized steamship lines operating between Hongkong and the United States, which is of interest in connection with the trans-continental railway situation and the Pacific steamship services:

For the last ten years Japan has been spending large sums of money in the encouragement of her mercantile marine, and some doubt is being expressed at the present time as to the practical value to Japan of this policy and the results shown by the operation of the subsidized lines. The principal routes on which their subsidies are paid are the European line via Suez, the Hongkong-Seattle line, the Hongkong-San Francisco line, the Japan-Australian line, and the Hongkong-South American line. The Hongkong-Seattle and Australian lines are operated by the Nippon Yusen Kaisha, while the San Francisco and South American lines are operated by the Toyo Kisen Kaisha. The European and Australian lines do not have much interest to Americans except with regard to their general bearing on the policy of subsidizing the mercantile marine.

Communication With South America

The South American route, previously operated without subsidy, was reopened last spring under a government subsidy understood to be \$40,000 gold. The possession of this subsidy has put them in a position where they have been able to make serious inroads on the South American business of the Pacific Mail Steamship Company, the

American trans-Pacific Line, which used to handle this traffic via San Francisco and Panama. The company has three steamers on the line and the service provides a sailing every two months from Hongkong to Callao, Iquique, Valparaiso, and other South American ports when cargo offers, via Moji, Kobe, Yokohama, Honolulu, and Salina Cruz, Mexico. Two of the steamers used are of 6,000 gross tons, and were formerly employed in the Hongkong-San Francisco service. The third steamer is of 5,000 gross tons. This line has not been in operation for sufficient length of time to furnish a basis for calculations of any value. It is stated that the expenditure required for each trip is about \$65,000, thus leaving a loss of \$25,000 to be covered by cargo and passenger revenue. The restrictions on the immigration of Chinese coolies in Chile and Peru, which went into effect shortly after the line was started, seriously affected the company's passenger business, while the freight carried from Chinese ports amounted to very little, owing to the temporary attitude of the Chinese toward the line.

Hongkong-San Francisco Line

The Tokyo Kisen Kaisha, which operate the Hongkong-San Francisco line, are understood to have sustained a net loss on their operations in the latter half of 1908 of \$400,000. It was during this period that the company put into service a handsome new liner called the Tenyo Maru. In the first six months of 1900 a further loss of \$250,000 was sustained. It was during this period that the second new ship, the Chiyo Maru, was put into service. For these two new steamers the company had planned to import crude oil from California, refine it in Japan, and use the product as fuel. They therefore purchased tank steamers at a cost of \$1,500,000; but just as the business was started the Japanese import tariff on crude oil was suddenly raised from 20 per cent ad valorem to 70 per cent. This line also has probably suffered more than others from the attitude of the Chinese. Their steamers have been operating with almost no cargo and with very few passengers. About \$90,000 represented the expenses for each trip of the large steamers, and until May last the government subsidy was only \$37,500 per trip. This company has been cutting down their staff, reducing salaries, and economizing in every way. The two new tank steamers are said to be nearing completion, but still to be paid for, and there also remains the payment of the loan of \$1,000,000 raised in America last September and due in October next. The following table from the Tokyo Keizai gives cargo and passengers handled by the Hongkong-San Francisco line since 1899:

Year.	Cargo Tons.	Passen- gers.	Year.	Cargo Tons.	Passen- gers.
1899-1900	87,819	10,136	1903-4	14,690	1,662
1900-1901	95,038	11,569	1904-5	9,574	1,558
1901-2	91,486	15,464	1905-6	60,003	13,539
1902-3	90,579	12,584	1906-7	75,333	11,220

An examination of the two foregoing tables disclose the fact that these subsidized lines are not carrying at the present time a quantity of cargo materially greater than when they first started operations, while the increase in the number of passengers is comparatively insignificant.

Hongkong-Seattle Line

The Tokyo Keizai states that since 1900 the Nippon Yusen Kaisha on the Hongkong-Seattle line, employing three ships, each of about 6,000 tons gross, drew an annual subsidy of \$327,000. This paper gives the following table showing cargo and passengers handled by the Hongkong-Seattle line, which they state is compiled from official sources.

Year.	Cargo Tons.	Passen- gers.	Year.	Cargo Tons.	Passen- gers.
1901-2	80,411	3,380	1904-5	98,963	2,619
1902-3	194,852	8,679	1905-6	122,456	4,519
1903-4	94,593	4,288	1906-7	182,525	10,577

The same paper implies that the Hongkong-Seattle line is carrying full cargo on each voyage and inquires why it should be necessary, this being the case, for the Government to subsidize the line.

European Line Comparisons

This is further borne out by the following table, also from the Tokyo Keizai, showing cargo and passengers handled by the European line:

Year.	Cargo Tons.	Passen- gers.	Year.	Cargo Tons.	Passen- gers.
1899-1900	154,230	3,788	1903-4	211,802	3,744
1900-1901	429,124	6,811	1904-5	.....	.....
1901-2	401,891	7,494	1905-6	81,102	2,554
1902-3	415,164	8,381	1906-7	425,502	9,481

The sudden decrease in passengers and cargo from 1903 to 1906 was due, of course, to the Russo-Japanese war, when trade was affected by the conditions incident to the hostilities.

Advantages to Foreigners

The Tokyo Keizai contends that the bulk of the cargo carried by these subsidized lines neither leaves nor enters Japan, so that foreign countries get most of the advantages accruing from the subsidy. They cite the tables which follow, showing the tonnage of cargo imported into and exported from Japan and that distributed abroad to support their contention:

Year.	Import and export. Tons.	Distributed abroad. Tons.	Per Ct. Japan cargo.
European Line—			
1899-1900	81,341	50,321	64.7
1900-1901	124,770	57,711	68.3
1901-2	116,373	63,168	64.8
1902-3	127,339	55,211	65.9
1903-4	16,442	10,226	61.5
1904-5	.....	.....	.....
1905-6	68,817	32,243	68.0
1906-7	130,016	71,389	69.0

Hongkong-Seattle Line.

1901-2	39,410	8,951	81.4
1902-3	54,836	17,297	76.4
1903-4	35,365	6,392	84.6
1904-5	34,478	2,031	94.4
1905-6	38,326	10,259	78.8
1906-7	48,449	21,136	70.9

Hongkong-San Francisco Line—

1899-1900	18,068	35,000	34.0
1900-1901	20,401	39,073	34.3
1901-2	19,500	33,825	34.6
1902-3	23,034	32,641	41.3
1903-4	5,910	85	98.6
1904-5	3,312	1,639	66.8
1905-6	11,863	20,729	36.3
1906-7	18,758	18,799	50.0

As shown above as regards the principal cargo, Japan's share in the European line is 60 to 70 per cent; 70 to 80 per cent on the Hongkong-Seattle line, and 30 to 50 per cent on the Hongkong-San Francisco line. But when a comparison is made with the total amount of cargo handled by these lines, Japan's share dwindles to something like a third, as will be seen from the following:

Year.	Total cargo tons.	Japan's share tons.
1899-1900	154,230	81,341
1900-1901	429,124	124,770
1901-2	401,891	116,373
1902-3	415,164	127,339
1903-4	211,802	12,442

1901-5	.....	.....	.....
1905-6	.....	81,162	68,847
1906-7	.....	129,662	129,615
Hongkong-Seattle Line—			
1901-2	.....	89,411	39,410
1902-3	.....	194,852	52,826
1903-4	.....	21,394	5,386
1904-5	.....	98,993	34,478
1905-6	.....	122,426	38,726
1906-7	.....	182,525	48,499
Hongkong-San Francisco Line—			
1901-1900	.....	87,819	18,068
1900-1901	.....	36,038	26,461
1901-2	.....	91,486	19,500
1902-3	.....	99,379	24,044
1903-4	.....	14,690	5,920
1904-5	.....	9,574	3,312
1905-6	.....	60,000	11,863
1906-7	.....	16,333	18,158

The contention thus expressed finds particular interest to American business men in the connection of these two subsidized lines with the American transcontinental railways, and from the figures given above it would appear that the Japanese steamship service has chiefly benefited the railways operating from Puget Sound and from San Francisco.

The Chicago, Milwaukee and St. Paul Railway commenced a freight service in connection with the Osaka Shosen Kaisha. It is understood that this steamship line comes within the terms of the Japanese subsidy act and draws a subsidy from that government, but the amount is not known. The line is too new to show results as yet.

AWAKENING IN CHINA

Commercial and Industrial Development—Opportunities for American Enterprise.

The wonderful material and moral development in progress in China is given impetus by the scheme adopted for establishing a limited monarchy in lieu of the autocracy that has endured so many centuries in that ancient Empire. These changing conditions are presenting opportunities to Western enterprise that will bring profitable results to those who take advantage of them. This is especially true of the United States, toward whose Government and people all classes in China are especially friendly. Mr. Frank G. Carpenter, a well-known traveler and writer, in describing the great awakening in progress, outlines the plans that have been adopted for introducing parliamentary government, which plans will require almost ten years to carry out. The people are to be prepared for the new dispensation by regular gradation. This year they are being prepared for provincial assemblies, including opening of schools for study of self-government in cities and villages; in the second year members will be elected to the provincial assemblies; in the third year they will be organized; the fourth year will bring a new code of laws and courts; and in the fifth a system of taxation will be inaugurated. In the years following they will be prepared for the preliminary reorganization of the government revenues and expenditures and the establishment of a judicial system. The plans for popular education constitute an important feature of the new movement. Schools are being established in every part of the Empire and are being placed under educated Chinese scholars who have studied in Japan, Europe, and the United States. After outlining this movement Mr. Carpenter directs attention to the opportunities that now offer to foreigners in a business way, and the advantages that will surely come to the

United States if our manufacturers and merchants will make proper effort to secure them. Mr. Carpenter writes:

The new constitution is bound to be of great advantage to the United States, and in a lesser degree to all foreign powers. It will bring about the reorganization of business and trade, and will lead to a large number of Chinese students going abroad. The most of these will be sent to either Japan or the United States. Hundreds will come to our country, especially as by the scheme adopted for the use of the Boxer indemnity which we returned to China a large sum is to be continuously spent in educating Chinese boys in America. Tang Shao Yi took over the first installment of students last year. One hundred more are to be sent over in 1910, and 50 more each year for 30 years thereafter. This means that for the next generation China will always have 200 of its brightest young men in the States. They will be studying American institutions, making American friends, and coming back here to favor America for China in its foreign relations. Talk about a Chinese alliance! The return of that indemnity was the most profitable work Uncle Sam ever did. From now on it will serve as a steady leaven of Americanism in the dough of the old Chinese Empire, working for the interests of our country in the formation of the new.

Demand for American Men and Materials

Under the new constitution there will be an enormous demand for machinery and the other necessities of our western civilization, and this should aid America in its efforts to furnish them. There will be a demand for teachers, engineers, and specialists of all kinds, and as far as friendship is concerned Uncle Sam has the call. Even now the Chinese students who were sent to the United States in 1870, to be educated there, are among the leading officials of the Empire. They do not hold the highest positions, but they are close to the top, and are really doing the work of the new China. I meet graduates of Yale, Harvard, Dartmouth, and other Eastern colleges here and there, and I have found several Chinese officials who were educated in California and other parts of the West. There were about 40 students taken over in 1870, and others have gone from time to time since then. In addition to the 200 paid for by the indemnity fund, many others will follow by force of example, so that the number will probably be 500 or more. In 1907, before this fund began to work, we had 300 Chinese students registered at the embassy in Washington. Of these only 49 have been sent over by the Imperial Government, and the others were private students, furnished with money by their parents. If the same ratio be preserved, China should have 800 students when the indemnity fund is in full force.

Opportunities for Americans

This means that during the next generation thousands of Chinese will be educated in the United States, and that they will form a force in our favor so strong that no other government or trade element of Europe can compete with it. They will learn to be engineers, railroad managers, and manufacturers, and when they go back to China their machinery and other supplies will be ordered from the establishments which they have known in the United States.

In the meantime the Chinese feel so friendly to us that there should be many openings for young Americans. Foreigners will have to be employed in the reorganization of the government and in the building up of new industries. Within a few years China must have a large force of civil, mechanical, and mining engineers. It will

need metallurgists, chemists, and other specialists. It will probably establish national banks and a new system of coinage, with mints in a half dozen provinces. Its post-office system will be modernized, and as for its railroads, thousands of miles of new lines are already projected and much new track is being laid in different parts of the Empire. There will be government openings for school teachers and college professors, and also opportunities from private capital for specialists in all modern industries.

SECURING FOREIGN TRADE

A Feature Too Often Overlooked by Exporters

Consul Rufus Fleming, of Edinburgh, writes as follows of the manner in which an American exporter established favorable relations with a Scotch firm:

An incident has come under my observation which may not be without value as an object lesson, or at least as a suggestion, to American manufacturers and producers who either have not entered the field of foreign commerce or have not gained a satisfactory measure of success in that field. In an early month of last summer a letter was received at this consulate from a manufacturing company in a western State, requesting to be put in communication with a reliable jobbing or commission firm in this part of Scotland that handled a certain class of products. This was done. The local firm obtained samples and price lists. The American company asked for references, which were given. Among these references were banks in this country and business houses in the United States. The American manufacturers made an extremely careful investigation, so thorough and comprehensive that the Edinburgh firm heard of it from more than one direction, but it was not resented, for they had no reason to fear the result of any inquiry.

Confidence Well Placed

After business relations had been established, the second or third transaction was of a somewhat extraordinary character. The American manufacturers had consigned a considerable quantity of their products to their representative at a port on the continent of Europe, where, owing to an unforeseen congestion in the market, the goods could not be sold immediately and might not be saleable at a profit for an indefinite period. The American company cabled their agent to forward the goods to the Edinburgh firm and wrote to the latter to take the goods at a minimum price or sell them on commission. This was a new experience for the local firm in dealing with a large American concern in a rather large way for the first time. There was no bill of exchange to accept, nor was a scrap of security required. The goods were simply handed over to the firm with an implied assumption of honorable dealing on the part of the consignee. A local demand existed, the consignment was accepted, and the goods were soon sold. It is hardly necessary to say that the uninvited manifestation by the American company of confidence in the Edinburgh firm, on short acquaintance, has secured for the company a very loyal and useful friend in this market. Not many such business houses in each of the important foreign markets are needed to make up a great aggregate of foreign trade for an American manufacturing concern.

This incident is related as one of several similar occurrences here which seem to bear out the advice the writer has ventured to give whenever asked by American man-

ufacturers or producers for an opinion with reference to the best method of obtaining trade in Scotland: Find out the progressive firms in your line; put them to the severest test of inquiry regarding their character, standing and strength, and then put faith in them.

HONEY IN MATAMOROS

An inquiry having been made concerning the honey business in this district, Consul Clarence A. Miller of Matamoros, secured the following information from an authority on bees and honey in Brownsville, Tex.:

So far as my experience goes the bees of this section can make a living any ordinary year at any season. They begin to store honey in March, and the season lasts until the middle of October. During this time the amount stored varies from nothing, just after a rain, to an enormous flow, that sometimes runs as long as six weeks without a break. The two main flows occur in April and from the middle of June to August. The bees practically leave drones the year through, making queen rearing possible at any season of the year. The swarming season lasts from March 1 to the middle of July, due to the favorable conditions that exist here.

On the Mexican side of the river, as I am informed by those familiar with conditions, the flora of the country changes entirely in from 1 to 3 miles, so that away from the river front on that side it is not at all desirable as a bee country from a strictly commercial standpoint.

The merchants and druggists in Matamoros pay to the farmers who bring the honey 50 to 62 cents gold per gallon, and retail it at from \$1 to \$1.25 gold per gallon. No honey is exported, it being all consumed locally.

There is no means of estimating the annual production of honey in the Matamoros district unless the production of beeswax would assist in arriving at an estimate. All the honey is sold strained. All the beeswax is exported to the United States. The exports of wax during the first nine months of the present year amounted to 4,052 pounds.

INDUSTRIAL CONDITIONS IN GREAT BRITAIN

The British Board of Trade returns show the extent of the industrial depression in the United Kingdom:

After a number of lean years, culminating with 1904, in which wages were constantly falling, an upward tendency was manifested which reached its climax in 1907. Beginning with the second quarter of 1908, and during the first six months of 1909, there has been a steady fall in wages, with an increasing number of workers out of employment. The wages of 464,000 persons were reduced in 1908, while only 119,000 received an increase. Of the number receiving the increase, 57,000 were employees of the Government, or of the various municipalities, 12,000 were textile workers, 11,000 were employed in the printing and allied trades, and 9,000 were engaged in the building trades. Of those receiving diminished wages, 83,500 were in the engineering and shipbuilding trades, 69,000 were employed in the manufacture of pig iron, iron and steel, and 283,000 were coal miners. In the first six months of 1909, 1,081,273 persons suffered a decline in wages, as against 6,439 who were benefitted by an increase.

The Imperial Chinese Commission, which has been touring this country for several weeks in charge of Sir Chentung Liang-Cheng, a former minister to the United States, will, before returning to China let contracts for army and navy supplies aggregating over \$20,000,000.

On the Ground Floor

The disposition of the salt monopoly of Venezuela has not yet been reached, as there are said to be various offers for its administration for the Government, but none of them seem to have been approved.

The production, treatment, etc., of salt is a government monopoly absolutely, and the importation of salt is absolutely prohibited. The production is confined to sea salt, the power being that of evaporation, and the quality ranges from "fine common" to "XXX" or "bay salt."

The evaporating stations (one can hardly call them plants) are located at various points along the extensive coast line. The total output is, more or less, 16,000 metric tons of 2,204 pounds each. Labor is very cheap and the output could be greatly extended.

The salt industry of India is entirely in the hands of the Government, it being a monopoly used as a means of taxation for raising revenue. The importation or production of salt by private individuals is prohibited, and it is sold to the public only in special shops where postage stamps and tobacco are offered for sale. All the salt produced in Italy comes from sea water, evaporated at the works on the islands of Sardinia and Sicily, and at Volterra in the province of Pisa.

The Government both imports and exports salt. The imports and exports of salt in 1907 and 1908 were as follows: Imports, 51,604 and 2,106 tons, respectively; exports, 99,191 and 85,489 tons, respectively. Salt was exported to the United States to the amount of 15,590 tons in 1907, and 7,871 tons in 1908. Manufacturers seeking a market in Italy for salt should address the Ministero delle Finanze at Rome.

Salt has been a government monopoly in Japan since 1904, and, except by the Government or by persons authorized by it, no salt can be imported from foreign countries or brought from localities where this law is not in force (leased territory in Manchuria and the Japanese portion of Saghalien, etc.), nor can it be manufactured by any person or corporation other than those who have obtained permission from the Government, which takes all the production, allowing regulated compensation according to quality and locality of the production.

The price at which the Government sells the salt is the sum of the amount of compensation paid plus a fixed amount of monopoly profit, ranging from four-fifths of a cent per kin (1.329 pounds) up. Salt intended for use in mining, industry, fishery, and agriculture is sold at a specially reduced price. To encourage the exportation of salt it is sold without the monopoly profit.

The annual production of Japan (excluding Formosa, Saghalien, etc.) is in the neighborhood of 30,000,000 bushels, valued at about \$5,200,000. At present the importation of European or American can only be made by the Yokohama firms named below, all of whom have special contracts with the Government: American, Mexican and Canadian salt, China and Japan Trading Company (Limited), No. 89 C. Yamashitacho; British salt,

Salt & Fraser (Limited), No. 167 Yamashitacho; German salt, Otto Reimer & Co., No. 197 Yamashitacho.

Parties desiring to introduce American salt into this market should communicate with the China and Japan Trading Company, which has a New York office.

Concerning the Brazilian port works at Rio Grande do Sul, which were laid out by an American engineer, for which the money (and consequently the machinery) was secured in France, Vice Consul-General J. J. Slechta writes from Rio de Janeiro:

"According to the recent reports sent to the Congress by the constructing company the harbor of Rio Grande is to be opened to deep draft vessels early in 1911. There is now on hand material and supplies of a value exceeding \$3,000,000, and 55 miles of railroad have been built for the purpose of transporting stone and other material used in the construction of the keys and break-water. This road is broad gauge, and can handle 3,000 tons of rock daily. One bucket dredge with a daily capacity of 3,000 cubic meters, and one suction dredge with a daily capacity of 5,000 cubic meters, have been installed, and are at present being used to cut a canal 50 to 60 meters wide, 6 meters deep, and two-thirds of a mile in length, which will serve to drain the lowlands about the city of Rio Grande.

The statement of the exports and imports, issued by the Bureau of Statistics of the Department of Commerce and Labor, presents figures for the one month and the ten months ended October 31, 1909, compared with like period in 1908. The October imports were \$127,682,689, an increase of \$25,642,579 over the imports of October, 1908. Exports for October, 1909, \$200,698,343, an increase of \$28,713,805 compared with October, 1908. The excess of exports above the imports for the month was \$73,015,654. For the ten months ended with October, 1909, the imports were \$1,196,239,292, and the exports \$1,461,508,980, showing an excess of exports above the imports of \$165,269,688. The imports for the ten months of 1908 were less than the imports for the same period in 1909 to the amount of \$295,701,014. The exports for the ten months of 1908 were greater than in the ten months of 1909 to the amount of \$41,242,907.

GERMANY SUBSIDIZES AUTOMOBILE VANS

The German Government grant subsidies to owners of industrial automobile vans, provided the vans and motors are constructed according to the specifications of the War Department, and the owner enters into a contract with the military authorities to place the trucks at the government's disposal whenever the army is mobilized, and to keep the trucks always in such a condition during a period of five years that they can be utilized for military purposes.

THE CANADIAN MARKET

British Manufacturers to Increase Their Sales in Dominion

The importance of the Canadian market to the United States is apparent by the fact that the exports of American merchandise here last year aggregated \$152,629,000, while to the entire continent of South America only \$76,579,000 worth of American goods were sent. As this publication marks the initiative of special efforts on the part of British manufacturers to increase their trade in the Dominion, the following abstracts will be of interest:

Importance of Canadian Markets

The British manufacturers who regularly visit Canada or appoint local representatives here while the Canadian market is comparatively in its infancy will certainly reap their reward as the market expands, provided only they will keep in close and constant touch with what Canada can buy, and even wants to buy, from England. In reviewing the openings for new or increased trade, the Canadian market naturally divides itself into three classes: (1) Goods, material, or produce which can be made in Great Britain and on which duty has to be paid on entering Canada; (2) goods, material, or produce which can be made in Great Britain and which enters Canada duty free; (3) goods, material, or produce which are not the product of Great Britain, but which can be handled by English brokers.

In commencing my review of specific classes of products that are worth the attention of English manufacturers, let me emphasize four points which are always to be in the foreground of any contemplated trade in Canada: (1) Adaptation to Canadian requirements. On this it seems surprising that in some trades England has been so indifferent to noting the specific wants of the Canadian market. (2) Packing. In a country like Canada, which has learned the art of packing its wares from its neighbor over the border, this matter has a strong appeal. (3) Expeditious execution of orders and rapid transport. (4) Explicit, piquant and well-gotten-up catalogues and literature.

Aluminum Goods, Motor Cars and Footwear.

In aluminum fancy articles, too numerous to mention, the Americans do a fair trade, but I did not encounter a single article of American make that could not be made cheaper in England.

There is a growing field for motor cars of British make. Manufacturers will find it necessary to give an agent more generous terms than they would give at home. The motor cars in use are from 18 horsepower upward. One does not see any motor bicycles or tricars.

I can not see that there is any importation of British made footwear that is of any account, but there is room for it. There is no limit to the markets that the British trade can enter, and I see no reason why Canada should not be one of those markets. The patterns of Canadian footwear are at complete variance with ordinary British standards.

Drinks and Literature

The Canadian palate in drinks is, for the most part, American (excepting only the growing consumption of Scotch whisky), and whether English houses can get any of the trade in the numerous "ingredients" that compose the endless cocktails, etc., that are sold everywhere is a question which I do not pretend to answer, but as a supplement to the importing of the more important liquors the trade in these minor compositions should not be negligible.

I venture to express the opinion that the "plebs" in Canada have not, generally speaking, a very enlightened taste for literature—yet. One of the contributory reasons for this is the execrable Yankee press of which the Dominion is the victim, and the flood of equally vapid "literature" and worthless magazines which flood the country from the States. At the same time there is a growing tendency in Canada to absorb English sentiments. With the growth of travel to Great Britain this tendency must increase, because there is more solidarity in English ideals, sentiments, and aspirations than in American. All this is closely connected with the exchange of literature from Great Britain. Whether English publishers are in a strong enough position to "mold" the reading public or not I do not know, but if so, they have it in their power to secure for the English trade and the English author a larger share of the Canadian patronage by creating a growing leaning toward the higher standard of literature which is associated with England.

Cement and Electrical Goods

While England does a growing export trade in cement to Canada, there is every indication that the States will soon have all that is worth having in this trade unless English works show a very much larger measure of activity. The Americans seem to be on the spot quicker in the matter of government contracts. With the almost unprecedented amount of construction work that is going on throughout the country it would appear to be worth the while for English works to put forth special energies for some years.

In their adaptability to being able to make electrical goods successfully the United States has the largest share of the import trade. The market for England in finished goods is not a very hopeful one, but a substantial trade can be looked for in various electrical accessories, cables, insulators, and a variety of similar lines. The main demand for electrical goods is, of course, in traction street cars, etc., motive power for plants, etc., telephones, and lighting. The British maker should find a wider trade with ordinary attention to the market. Remember, expeditious delivery means eliminating the Atlantic voyage, because your American and Canadian competitor is on the spot.

Fire Apparatus and Glassware

The terrible prevalence of fires in Canada, in factories, hotels, and otherwise, and the absence of appliances to cope therewith, compel me to think there is a large scope for British energies in this trade. I can not recall having seen any advertisements of English apparatus. In oak bark tanned fire hose English makes can hold their own, but these again are too little known.

At present the import trade in glass and glassware is divided almost equally between Great Britain, the United States, and Belgium. Great Britain has shown the largest increase of late years, due to one British glasshouse carrying large stocks at several points in Canada. Glass tableware comes principally from the States, and in one warehouse in Canada I saw a stock of some 200 barrels of American-made tumblers. The barrels were of a neat, convenient size, about the size of an apple barrel. So far as my experience goes, American glassware is very brittle compared with English, and while the Americans no doubt get and retain the market on price and by adhering to Canadian standards, yet I am of opinion that there is a larger field for English manufacturers of tableware, jars, etc., if assiduously looked after. Beveled mirrors for over mantels is a trade worth closely watching.

Jute, Jewelry, and Machinery

Great Britain has the largest share of the jute trade, though the United States, British East Indies, and latterly Japan have a share. The British manufacturers should be on the spot and see to it that whatever is made from jute or that jute can be adapted for comes their way. If this is not done the trade must, and certainly will, gradually but surely go to the East Indies.

The jewelry trade is so intimately associated with the tastes of the market that the reason of the failure of many English houses here in securing the trade has been due to not following out the taste called for. With gold jewelry, to acquire any success in the Canadian market, 10 and 14 carat standards must be adhered to. In gold, silver and gold-filled watch cases the English manufacturer is badly outdistanced, so far as getting any bulk of the trade is concerned.

Among the many classes of English machinery perhaps that related to the various classes of mining has the greatest chances of success in the Canadian market, such as mining machines, pumps, explosives, air compressors, etc. English explosives are preferred in the maritime provinces, but in other portions of Canada English mining machinery has a more difficult task, not only on account of freight considerations, but because the farther you get west the more you will find mining operations controlled by American foremen, with their own ideas of what is correct in mining operations. This is especially so in British Columbia, and the feature is one that requires a considerable degree of vitality to combat. A most important feature in connection with machinery of all kinds, whether mining or otherwise, is the necessity of holding stock of parts at numerous points in Canada. Another very important feature in connection with machinery of all classes is that all threads or gages be of American standards. This is a point I can not too strongly impress on English makers. They will, or should, realize the importance of it when they consider that the majority of the controllers of, at all events, mining machinery are American in their upbringing, if not in their nationality.

In England there are makers of power presses, hydraulic machinery, motor contrivances, shearing machines, lathes, etc., universally known in England as "standards," and which, I am convinced, are unknown to nine out of ten engineers and factory managers in Canada, for the reason that they are not properly brought to their attention. Canadians are quick to appreciate any labor or money saving device, and quick to adopt it. They quickly reason that a machine with any merit quickly saves its cost, and if they have bought a new machine "yesterday" they will "scrap" it and buy another "to-day" if the seller can demonstrate that it is more efficient than "yesterday's." Most English machinery is, I am satisfied, more durable than American, even though the price is higher. A concern which used a large number of power presses was to be sold under the hammer. Among the presses were a number of both English and American of best makes. On examination it was found that there was not a single American press that was not defective in some respects—a broken armature or otherwise. All the presses had, of course, considerable wear and tear, and the English presses had easily shown their superior construction. Other machinery in which English makers can look for extended business are especially dyers' and textile machinery, coal cutters, and boring machinery. While on machinery I

would mention boilers and wire. The former require a considerable amount of energy to sell against the home product, while the users of cables will pay a higher price for the English product on account of its reliability.

Medicines and Medical Supplies

In the matter of medicines and chemicals the United States does four times the trade that Great Britain does. The American import figures, however, include various products, such as gum, etc., which are not products natural to Great Britain. In any aggressive campaign on the part of the English makers I would point to proprietary medicines, which are not widely advertised, and as a result not universally known.

In medical supplies American products are largely advertised, and it is only by meeting this with English advertisements that the English producers can hope to get hold of the business. In the case of American supplies (which are well advertised) the druggist can sell on a small margin of profit, because the goods are advertised for the store and he has no trouble to maintain a steady turnover, and as a consequence has every encouragement to take up substantial stocks.

Metal and Metal Manufacturers

In metal and manufactures of metal, an important class of imports, the English maker has not retained so large a proportion of trade as he should have done. One reason for this is that in such goods as structural iron-work, iron sheets, tin plates, etc., English mills do not generally adhere sufficiently to the American standards which obtain throughout Canada. In manufactures of metals the same remark applies; there is not sufficient respect paid to Canadian requirements. That Great Britain only holds 20 per cent of the total Canadian imports of metal and hardware is eloquent argument that she is not on the spot. Great Britain can head the list in cutlery, galvanized iron sheets, and lead. Why, then, should she lose ground in thin iron and steel sheets and plates, barbed-wire fencing, copper goods, and tubing, while the imports from the United States of the products named show increases? The American metal mills have representatives all over Canada and representatives in all important centers, so that it is possible for a user of any of the products under consideration to get "today's" prices on the long-distance telephone for any of the products; he would probably, in nine requirements out of ten, have to cable or write to England to get prices. British metal mills contemplating entering the Canadian market would be well advised in getting hold of the American and Canadian standards of sections, gauges, and measurements of iron and steel bars, sheets, etc.

If the British maker can not send Canada the finished article, he can send the article partly finished, and in such there is a very large unexpected market to be secured. At random I would name the following few articles in this unfinished category: Shovels, not handled or finished; pick-eye molds; various cast goods and

stamped steel goods, in an unfinished state; steel parts of lumbering tools, in which there is a very large trade; and a variety of metal parts used in the trades. American manufacturers are meeting this phase of the development of Canadian manufactures by starting their own works on Canadian territory and sending to them from the States the crude manufactured product and finishing it at the Canadian works.

Measures, Locks and Farm Seeds

Another trade in which English works fairly hold their own is folding rules, gauges, tape measures, etc. In these, however, they miss a large business in such standard measures as are indigenous to the American continent, such as all gauges connected with the lumbering and other trades. I find all American goods of this class very much more advertised than English ones. There has been very considerable warfare and price cutting by the American makers in these goods for some time, but when this ends, as it must do, the English makers will do well to settle down to a strenuous campaign.

English lock makers have some trade in English-pattern padlocks, but a careful following of American and Canadian patterns, which are mostly identical, will well repay the maker. The British maker who breaks away from the conservatives who control the lock trade in England will not regret it.

It is, perhaps, surprising that the United States gets the most of the trade in farm seeds. This is due to the following reasons: Canadian agricultural conditions are more thoroughly understood and followed by American growers, and the farmers of Canada are so largely recruited from the States that the majority of them have little or no knowledge of any seed products other than American or Canadian. I suggest that it would pay large seed growers in England to publish their own gardening annuals and manuals in Canada, offer prizes, as they do in England, for crops, vegetables, and flowers, etc., and so get a hold on the market.

Sporting Goods and Soaps

Sporting goods is a branch open for perhaps as large a share of development as any reviewed, and one in which the British trade does not get the proportion which it could do. In guns, rifles, and revolvers it is well to be posted on calibers, including United States Army standard. English firearms have a fair sale, but the American makers advertise so much more extensively, and in consequence the storekeepers have every encouragement to carry large stocks of the American article. Further, dealers have so little difficulty in getting firearm sundries and fittings for American goods that they favor them on that account, as well as because they are advertised for them. The trade in fishing rods and tackle of high class is divided between the American and English makers.

Imports of English soaps have largely declined during recent years on account of the increase in the im-

ports from the United States and the development of the manufacture in Canada. I came across various samples of American and Canadian made soap in boxes which were a clear imitation of well-known English brands.

Textiles, Clothing, Etc.

British textiles are unchallenged, the imports are increasing, and the manufacture of the Canadian products and the American and other imports are little more than holding their position. With regard to textiles generally, there is no doubt that British firms are reaping the benefit conferred by the British preference and the surtax on German goods, but it must be borne in mind that there is not the same stability in Canadian politics that is associated with British politics, and preferences and surtaxes that reign today may vanish tomorrow.

In men's hats the one most universally worn is the felt, and the makes are largely American in shape. For that reason the United States competes closely for the trade. In spite, however, of American and Canadian competition, the English product has made continued progress. In the case of straw hats, men's and women's, while the English have a fair share of the trade, the progress of the United States is more marked.

In the case of ready-made clothing the British makers get but a meager share of the trade, the United States and Germany showing more adaptability to the demands of the market.

In tobaccos it is not necessary to follow Canadian or American grades. It is in the quality of the goods that the British import trade is to be secured, and the trend of taste is toward the flavors of British grades. Neither British tobacco nor cigarettes are advertised sufficiently in Canada, and in this respect they make a very poor showing against the American product.

The principal encroachment by competitors in regard to smokers' articles in British trade is from the United States.

In toilet sundries the American maker appears to be rapidly gaining ground in the Canadian market at the expense of the British maker.

IMPROVEMENTS FOR THE DEVELOPMENT OF COMMERCE IN VARIOUS PARTS OF THE WORLD

It has been unofficially reported that Harland & Wolfe of Belfast, in conjunction with the Canadian Pacific Railway, the Allen line and the Dominion Steamship Company, are to build a dry dock and repair works at St. John, and a dry dock, with a complete modern building plant, at Levis, on the St. Lawrence River, near the city of Quebec. The proposed dry dock for St. John will be 800 feet long and 130 feet wide, according to reports published in the daily papers. The cost of the dry dock and repair plant will be about \$2,500,000. This dock will

be able to accommodate the largest warships and Atlantic liners. A deputation of officials and business men from St. John, Quebec and Montreal on October 26 presented a petition to the Dominion Government asking for a subsidy of 4 per cent of the total cost of the docks and plants for a period of 50 years.

St. John is probably the best port in eastern Canada for a dry dock, on account of the harbor being free of ice during the whole winter. St. John has the advantage over Halifax, the only other safe winter port in eastern Canada, of being closer to the great centers of trade in both Canada and the United States. Montreal is only 481 miles from St. John, as against 837 miles from Halifax. During the winter, when the St. Lawrence is closed to navigation, the large Canadian steamship lines run from St. John. The 1,326 vessels clearing at St. John during the fiscal year ended March 31, 1909 represented 687,102 tons.

Advices have been received that the Government of Honduras has recently entered into a contract for the construction and maintenance of two lighthouses, one on the Island of Utila, lying off the northeastern coast, and one on Cape Falso, near the extreme eastern coast. The lights are to be of the automatic acetylene gas beacon type. The towers are to be not less than 100 feet in height. The contractor is to receive \$24,000 for the construction of the lights and \$2,400 a year for the maintenance of a good service for the period of 20 years. He is also to be exempt from the payment of all duties and taxes upon the materials used or upon the necessities of life for the men engaged upon the work. This contract is subject to the approval of Congress at its coming session, but there appears little doubt that it will be approved.

The great increase to be noted in the commerce of Italy with River Platte countries is due largely to the establishment of rapid steamer communication, in the opinion of Minister E. C. O'Brien of Montevideo. While statistics of the total importations into Uruguay from Italy during 1908 are not yet available, he states they are estimated at over \$3,000,000. The shipments to Italian ports in 1908 were valued at \$1,310,813. The trade between Uruguay and Italy in earlier years was: 1904, imports from Italy \$1,798,832, exports to Italy \$1,075,843; 1905, imports \$2,610,420, exports \$924,045; 1906, imports \$2,785,219, exports \$1,009,097; 1907, imports \$2,898,391, exports \$1,155,704. These figures show a steady gain each year, with the exception of the exports of 1905, when there was a decrease of \$151,798 in comparison with the preceding year.

There arrived at Buenos Ayres in September 161 steamers, of 390,176 tons, and 15 sailing vessels, of 18,616 tons; 14 nations were represented, but not the United States. Only one small vessel flying the Stars and Stripes came to Buenos Ayres in the first nine months of 1909, exclusive of Government vessels.

Reports from Melbourne, Australia, state that E. H. W. Crossley has invented a device concerning ocean navigation.

It is claimed that the invention will indicate the location of a wrecked vessel, the date when it met with the disaster, the depth at which the wreck lies, and also the course that the vessel was taking and the port that it was making for when it met with the disaster. The apparatus, which is in the form of a buoy, is released automatically from the bridge deck when the vessel meets with disaster, and a wire attachment holds it over the spot where the vessel disappears. The apparatus would prove useful, the inventor claims, should a vessel become helpless in midocean through an accident to her machinery, as specially floating "messengers" could be set adrift in prevailing currents. Plans and specifications of the invention have been filed in the Government patent office and a patent applied for.

Consul-General R. M. Bartleman of Buenos Ayres reports that a company has just been organized in England by prominent English ship owners and Argentine cattle raisers to ship regular weekly supplies of chilled meat from the River Platte to London and Manchester. The ordinary capital has been subscribed and work begun on 9 new 15-knot refrigeration steamers, to be added to the vessels already at the company's disposal. The British Isles are growing more and more dependent on Argentine for their meat supplies.

At the annual meeting of the Manchester Liners steamship line, held in England in October, Sir Christopher Furness, the chairman, said:

"One thing perfectly clear is that the high-water mark of the ship-owning supremacy of this country has been reached. All other great nations have determined, rightly or wrongly, to have a greater share of the carrying trade of the world in the future than they have had in the past, and I think it is time the British ship owners realized the reasonableness of that ambition in other nations."

GRAIN ELEVATORS IN RUSSIA

Need of Modern American System for Holding Cereals

While passing through Russia to his post at Hobart, Tasmania, Consul Henry D. Baker noted a number of observations, among which was the need of greater facilities for the storage of grain and the possibility of such requirements being met by American capitalists and builders of elevators and mechanical appliances for elevators. Mr. Baker's report follows:

In discussing the present Russian crop situation with a leading grain merchant in St. Petersburg, who is a large

exporter of grain to England, he was asked if the Russian peasantry, who have raised this year one of the largest crops of wheat on record, would be inclined to hold some of their wheat, with the expectation of better prices in the future, or would they at once dispose of it. It was explained to the Russian exporter that the position of the American farmer was now such that he felt independent when he harvested his grain, and he would not sell if he thought he would make a sacrifice by letting go at once, and furthermore, that this independence on the part of American farmers, aided by the facilities for storing wheat, tends to prevent undue depression in prices at the time of harvest. If the Russian farmers were in the same independent position, the present "bumper" crop might be sold without unduly weakening prices in the world's great markets.

This question brought a reply to the effect that not only is the Russian peasant, as a rule, too poor and deeply in debt to be able to hold the product of his harvest, but also the elevators of Russia have altogether too small capacity to hold a large crop like the one of this year, and if the crop were not promptly exported it would rot on the ground. The grain exporter said:

I think that a great benefit could be wrought for Russia if those interested in the grain trade of the United States could visit Russia and invest money in elevators, and engage in storing, carrying, and selling of wheat and other grains on a big scale. The capital invested in such business in this country is far too inadequate. The farmers have not the advantage of a great institution like your Chicago Board of Trade, where there is an active market and quotations established which are public property, and also where you have splendid facilities for trading in the warehouse receipts and the like. The farmers in Russia are at the mercy of a few cash buyers, who are afraid to purchase large lots because of the difficulties in storage and of freight transit.

Moreover, most farmers are quite ignorant of what constitutes a fair price for their products. There may be a big "boom" in wheat at Chicago, but our peasants, as a rule, know nothing of any such movements in the world's market, and this year, as always, they will sell their wheat as soon as they can for whatever it will bring.

It was suggested that the increasing use of American agricultural machinery, which prevents much waste, and also the opening up of Siberia is increasing the average grain production of Russia, and the need of better facilities for storing and marketing the grain is therefore becoming greater. It is believed that twice as much wheat, at least, in comparison with last year, will be exported from Russia this season, and it will all be shipped in haste. St. Petersburg has insufficient elevator service, yet the other Russian ports are far worse off. The largest elevator in the capital has been built by an English engineer.

Windau Elevator Regulations

With reference to the rates, regulations, etc., of the

Russian elevators, the following translation of a copy furnished from the port of Windau may be of interest to grain dealers and elevator companies in the United States. They were approved for the Minister of Finance by the Under Secretary of State, July 1, 1902, and read in part:

In the work of the grain-storing elevator of the Windau port, with a capacity of 3,000,000 poods (48,387 tons), the Moscow-Windau-Rybinsk Railway is guided by the following rules: The elevator, being under the management of the Windau agency of the Moscow-Windau-Rybinsk Railway is destined for (1) storage of grain, oil seeds, and oil cakes arriving by railway and other ways. (Note.—The grain can be put in corn bins or kept in bags.) The insurance of grain stores in the elevators is obligatory. (2) Unloading, loading and weighing of the grain when taken in, working up and passing out from the elevator into ships, railway cars, etc. (3) Cleaning, sorting, winnowing, as well as the drying of grain. (4) Packing of grain in bags or mat sacks when shipping the grain. (5) Packing and shipping of the bags according to the owner's instructions.

Grain, which is not to be deprived of its original qualities, can only be stored in the elevator in lots of not less than 750 poods (about 12 tons) of one kind of grain. Small quantities which do not correspond with the capacity of the corn bins are stored in bulk or in bags, according to the decision of the management of the elevator.

When shipping the grain to the elevator the owner is obliged to present in person or mail to the agency an application, giving his full name and address, stating what kind of grain and the quality he wishes to be stored, whether he wishes the grain to be sorted, also whether he will take delivery or wishes the agency to sell the grain for his account. The application must be accompanied by the duplicate railway receipt, and in case that a bank has lent money on the grain, the respective bank certificate must be submitted. In the latter case the owner of the grain must pay to the agency the difference, which diminishes all payments and charges on the goods, including the amount due to the bank, up to the limit for advances fixed for the station Windau of the Moscow-Windau-Rybinsk Railway Company.

Special Declarations—Damage Features

In case the duplicate railway receipts and certificates can not be presented simultaneously with the application, the agency sends, upon the request of the owner, according to the number of truck loads indicated, lists of special declarations, on which he must state the time of storage of his goods, and give the railway the right to treat the cargo according to the application originally presented. The shipper presents these special declarations at the dispatch station, together with the railway receipt, which are sent with the cargo to the elevator. (Note.—First. Grain addressed to the elevator on condi-

tions not mentioned above will not be received by the agency and remains stored at the railway station, and the cost of storage is charged according to general rules. Second. In confirming the receipt of the duplicate railway bill the Windau agency issues a certificate to the owner of the goods.)

The manager of the commercial agency has the option to refuse the acceptance of grain cargoes for storage if: (1) The cargo destined for the elevator proves to be wet, damp, damaged, with insects injurious to the cargoes of grain, or if in general its condition would require special treatment which does not correspond with the adaptedness of the elevator; (2) if the value of the cargo destined for the elevator does not cover all payments due on same, such as freight charges, cash payments, advances, and other preliminary expenses, and (3) if the cargo arriving by rail at the elevator was accepted for shipment two days after the telegram informing the station of shipment of the overfilling of the elevator has been sent by the commission and loan department of the Moscow-Windau-Rybinsk Railway Company.

(Note.—First. Damp grain may be stored in the elevator only when a special written agreement has been made between the owner of the grain and the Windau Commercial Agency. When the damp grain is sent to the elevator for immediate shipment no agreement is required. Second. Cargoes for storage arriving by rail which are not accepted, for reasons given in paragraph 4, are treated according to note 1 in paragraph 3. Third. In cases that the Windau Commercial Agency refuses to accept the grain, this fact is protocolled at the railway station and a copy of the protocol is sent to the owner of the cargo. Besides this, the agency must inform the owner of the cargo by telegram, provided the agency has been informed of his residence, when receiving the documents showing his right to receive the cargo from the station.)

Time Element and Handling Grain.

Grain cargoes are stored for a stipulated time or without definition of same, but not for a period exceeding six months. Cargoes which are not taken delivery of in the course of six months can be sold eight days after the expiration of six months, through the exchange broker or on public auction, in compliance with paragraphs 782 and 801 of the commercial statute. The word "elevator" must be inserted in the railway receipt, following the name of the station. (Note.—The Agency can demand that a cargo addressed to the station "Windau" be delivered to the elevator, provided that the respective declarations and duplicate railway receipts have been submitted and the cargo has not arrived yet at the station.)

The grain is weighed when received at the elevator, when worked over in the elevator, and when shipped; the weights obtained serve as a basis to ascertain the responsibility before the owner to the extent fixed by paragraph 9 of these rules. The grain is worked over in the elevator upon a written request to this effect from the

party who has authority to do so. (Note.—First. To insure the grain from damage, the management of the elevator has the right to order that the grain be ventilated at the expense of the owner. (Article 22 of the law of June 7, 1899.) In regard to grain which during the time of storage shows signs of damage by insects and in case that its infection could be ascertained when the grain was received, ventilating and other treatments can be applied. Second. Residues remaining after the sorting of the grain must be taken away by the owner in the course of three days, otherwise the management of the elevator sells them at any price. Residues which are unsalable are destroyed.)

When barley, wheat, rye, oats, and bearded wheat are received, not only the total weight is ascertained but also the quality of the grain in zolotniki (one ninety-sixth of a Russian pound, the latter being nine-tenths of an English pound) by means of a special testing apparatus. The management is responsible for the waste of or damage to the grain accepted for storage, if it can not be proved that such waste or damage is due to force majeure, or is due to the quality of the grain itself, or on account of defects in the packing, which could not be noticed from the outside when accepting the grain for storage. (Article 779 of the Commercial Statute.)

(Note.—First. The loss of grain in consequence of drying or leakage, for which the elevator is not responsible if the goods are stored for six months, is reckoned at the rate of the actual loss, but not exceeding one per cent. Second. The elevator is also not responsible for the loss due to ventilating, drying, sorting, and other means of working over, to the extent of the actual loss.)

Scale of Charges

For the operations done by the elevator the following scale of charges is fixed:

1—For storage per pood (36 English pounds), during the first 15 days (number of days less than 15 are taken as full 15 days), 1/10 kopeck, and afterwards at 1/200 kopeck per pood and day.

2—Insurance per month, according to the real value, ascertained by the tables of insurance companies, but not less than 50 kopecks per carload.

3—For unloading a carload, 0.11 kopeck per pood. (Shippers should note on the railway receipt "Unloading by elevator.")

4—For putting corn bins and reweighing, 0.25 kopeck per pood.

5—For sorting and reweighing, 0.20 kopeck per pood.

6—For winnowing, sorting, and reweighing, 0.75 kopeck per pood.

7—For ventilating and reweighing, 0.20 kopeck per pood.

8—For hauling, sorting, and reweighing, 0.70 kopeck per pood.

9—For weighing, 0.15 kopeck per pood.

10—For loading into vessel and reweighing, 0.70 kopeck per pood.

11—For loading into railway cars, unloading on tarpaulins, loading trucks, and reweighing, 0.20 kopeck per pood.

12—For putting into bags and tying up, 0.30 kopeck per pood.

13—For putting into bags or mat sacks and sewing same up, 0.50 kopeck per pood. (Strings and thread are charged at actual cost.)

14—For pressing the bags into bales before returning same to the owner, actual expenses incurred.

15—For shipping bags to the shipping point or any place given by the owner, 50 kopecks per carload of grain.

16—For passing grain once over the ribbons, 0.20 kopeck per pood.

17—For drying damp grain, 3 kopecks per pood of the damp grain.

SHIPBUILDING NOTES

Union Iron Works

S. S. Col. Drake received engine, boiler and hull repairs; contract to scale 9,000 square feet of boiler space and renew rivets, completed.

S. S. Whittier was drydocked to receive cleaning and painting.

S. S. Maverick was laid up for engine, boiler and hull repairs.

Contract completed on the British steamer Seminole for general repairs to engine, boiler and hull.

S. S. Argyll was on drydock for engine, boiler and hull repairs.

Extensive repairs are being made to the U. S. A. T. Crook, preparatory to placing the transport in commission. The repairs include drydocking, painting, overhauling, sea valves, drawing starboard propeller shaft, renewing lignum vitae in outboard and strut bearings and repairing sections of main steam pipe.

S. S. City of Para received engine, boiler and hull repairs.

S. S. Nebraskan was placed on drydock for cleaning and painting.

Schooner Fred J. Wood was drydocked for painting.

A fuel oil tank, 6 feet 6 inches in diameter by 15 feet 6 inches high over heads, is being constructed for the ferry steamer Vallejo.

S. S. Lucy Nuff was at works for repairs to crank shaft of steering engine.

Steamers Eureka, Roma and the British steamer Asia have received general repairs to engine, boiler and hull.

S. S. Phenix was drydocked for hull and engine repairs and painting.

The S. F. fire tugs Dennis Sullivan and David Scannell were drydocked for painting. The latter tug was fitted with a new propeller.

British steamer Frineulo received engine, boiler and hull repairs.

S. S. Majestic was drydocked for removing old and fitting new propeller.

Work at Moore & Scott Iron Works Shipyard

The S. S. Arctic, owned by the National Steamship Company, has been laid up for repairs and extensive overhauling. The cylinders of the main engine are being bored, crank shaft lifted and engine throughout put in thorough alignment.

Mr. James Denny is superintendent of the work on this vessel. This completes the line of vessels belonging to this company to receive a thorough overhauling under the direction of Mr. Denny.

The steamer Scotia has been hauled off the mud flats in Oakland Creek and put on the dock preparatory to being put into commission.

The pilot boat America, which was damaged in the storm of last Saturday night has been repaired and is again ready for sea.

The steamer San Jacinto has been paid up for repairs to her boiler. The furnaces are being pumped up and the boilers patched in several weak places. The vessel will be laid up about two weeks.

The tug Ada Warren was docked and a new wheel installed.

The schooner Commerce was placed alongside the wharf to receive a new main mast.

The Hind-Rolph schooner Muriel is receiving two new masts now being made over at the yard.

The schooner William Olsen will be docked for cleaning and painting and sundry repairs to the bottom.

The schooner Commerce will be placed on the drydock for repairs, cleaning and painting.

The keel for the oil barge for the Associated Oil Company is being laid and the work is progressing well, in accordance with the contract time.

The schooner Ethel Zane was on the dock for cleaning and painting and general repairs.

The Q. M. tug General McDowell was placed on the dock for cleaning and painting. It was eight months since the General McDowell received a new skag in her rudder-frame by the Goldschmidt Thermit process, and, on inspection at the recent docking, this weld was found to be most satisfactory.

Two large barges, owned by the Santa Fe Company, were docked for cleaning, painting and sundry repairs.

The pleasure yacht Bonnie Doon, owned by the capitalist, Mr. William Letts Oliver, was placed on the dock. This vessel will be put out of commission and laid up for the winter, until the yachting season of the coming year commences.

TONNAGE OF THE UNITED STATES FOR THE TEN MONTHS ENDED OCTOBER 31, 1909

Entered—Sailing, 2,203,706; steam, 31,283,719.

Cleared—Sailing, 2,212,376; steam, 30,723,900.

MARINE INTELLIGENCE

The United States Civil Service Commission announces that the following examinations will be held in San Francisco on the dates indicated:

Plant Physiologist (Male), Department of Agriculture, December 27; salaries ranging from \$1,500 to \$2,000 per annum. Junior Ceramic Chemist, Geological Survey, January 5-6; salaries ranging from \$960 to \$1,380 per annum.

Cook (Male), U. S. Penitentiary, McNeil Island, Wash., December 29; salary, \$720 per annum.

Scientific Librarian (Male), Bureau of Standards, January 5, salary, \$1,400 per annum.

For application blanks and further information apply to the Secretary, Twelfth Civil Service District, Room 241 Postoffice Building, San Francisco, Cal.

Office of U. S. Lighthouse Inspector,
Twelfth District,
813 Mutual Savings Bank Building,
704 Market Street
San Francisco, Cal., December 2, 1909

Notice to Mariners.—Alcatraz Island, California. (List of Lights and Fog Signals, Pacific Coast, 1908, page 18, No. 33, and List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 25.)

Notice is hereby given that on December 1, 1909, the light at this station was moved to and established in the new tower built about 40 feet, 156 degrees 00 minutes true (SE. 5/16 S. mag.) from the old light.

The light is 214 feet above the water and 84 feet above the ground, and is shown from a gray, octagonal, pyramidal, concrete tower, surmounted by a black cylindrical lantern, rising from a gray dwelling with red roof, and should be visible about 21 miles in clear weather, the observer's eye 15 feet above the water.

The approximate geographic position of this light, as taken from Coast and Geodetic Survey Chart No. 5,532, is: Latitude, north, 37 deg. 49 min. (28 sec.); longitude, west, 122 deg. 25 min. (21 sec.).

Angel Island, right tangent, 6 deg. 45 min. true (N. by W. mag.).

Goat Island, right tangent, 113 deg. 00 min. true (E. 7/16 S. mag.).

Fort Point Lighthouse, 250 deg. 45 min. true (SW, 11/16 W. mag.).

Notice to Mariners.—Carquinez Strait, California. (List of Lights, Buoys and Daymarks, Pacific Coast, 1908, page 30.)

Notice is hereby given that Selby Wharf Light, fixed red, will be established this day at the west end of Selby Wharf, entrance to Carquinez Strait, California, on the following bearings:

California Redwood Company's Wharf, right tangent, 66 deg. 00 min. true (NE. 1/4 E. mag.).

Mare Island Lighthouse, 335 deg. 00 min. true (NW. 3/16 N. mag.).

Starr Mills, northwest corner, 359 deg. 00 min. true (N. by W. 11/16 W. mag.).

By order of the Lighthouse Board,

W. G. MILLER, Commander, U. S. N.,
Inspector, Twelfth Lighthouse District.

Office of U. S. Lighthouse Inspector,
Twelfth District,
813 Mutual Savings Bank Building,
704 Market Street,
San Francisco, Cal., December 1, 1909.

1. Applications for civil service examination will be received at this office during the next thirty days for forming a list of eligibles from which to select a keeper to care for three beacon lights to be erected in Petaluma Inlet, San Pablo Bay, California. Applicants must be citizens of the United States, over 18 years of age.

2. This keeper will be paid at the rate of \$45 per month,

but must furnish his own power boat for attendance on the lights.

3. Application blanks and full information can be obtained by applying to this office.

W. G. MILLER, Commander, U. S. N.,
Inspector, Twelfth Lighthouse District.

MARINE INSURANCE

At a recent meeting of Lloyd's, held at the Institute of London Underwriters, a great part of the session was spent in deciding the question of rates on time charters. As a result tramp steamers, on which premiums were raised the early part of this year by 10 per cent, will be subject to a further increase of 10 per cent. In cases where no previous raise had been made an increase of 20 per cent shall be made. The meeting favored the application of these rates to both domestic and foreign-owned tramps.

It was further resolved that an amount not exceeding 10 per cent of the value might be insured as disbursements. This follows the practice already applicable to American hulls. In the case of liners which have produced favorable results it was agreed that rates should be 10 per cent higher than those formerly charged. In the case of both tramps and liners values of policies now running should be maintained, and that where the value is decreased an additional premium, proportionate to the decline in value, should be charged.

Marine Decisions

Loss of Cargo—An exemption in the bill of lading of liability for loss of cargo by theft does not relieve the vessel where there was negligence on her part which contributed to or facilitated the theft—*The Ghasse*, U. S. Circuit Court of Appeals, 172 Federal, 268.

Lien on Vessel—Where the master of a vessel sold merchandise shipped on his vessel at the termination of a voyage at an Alaskan port, under authority given him by the shipper to do so, unless he received further instructions, in so doing he acted as consignee and agent of the shipper, and not for the vessel, and the vessel is not liable for his subsequent embezzlement of the proceeds, having fully performed the contract of carriage.—*The Alice*, U. S. District Court, Western District, Washington, 172 Federal, 527.

Customary Dispatch in Discharging—The rules of a maritime association of a port relating to the time allowed for discharging cargo are not conclusive as to what constitutes customary dispatch at such port, as applied to a charter the parties to which were not members of the association.—*Crowley vs. Hurd*, U. S. District Court, 172 Federal, 498.

A marine and mechanical engineer in the East, with thorough experience in designing, erecting, testing, installing and estimating upon various classes of machinery, engines, boilers, turbines and gas engines, desires position on Pacific Coast as manager or superintendent, with opportunity to acquire an interest in the business. Applicant is at present engaged as mechanical and consulting engineer for a large and conservative concern in the East. Address, stating inducements.

NOTICE OF PURCHASES

Navy Department.

Bureau of Supplies and Accounts,

Washington, D. C., December 3, 1909.

This Bureau will open bids in Washington, on the dates stated below, for the following material. Bidders interested therein should give the schedule numbers desired, and forward same to the Bureau without delay. Applications will be filled as soon as the schedules are received from the Public Printer. Schedules can also be obtained upon application to the Navy Pay Office nearest each navy yard:

OPENING JANUARY 4, 1910.

HARDWARE, TOOLS, ETC.

Article.	Quantity.	Delivered at Navy Yard.	Sch.
Glass, window	62 boxes	Mare Island, Cal.	2034
Do	340 lights	Puget Sd., Wash.	2034
Locks, pad, bronze	70 dozen	Mare Island, Cal.	2036
Scales, counter	12	do	2035
Screws, wood, brass	190 gross	do	2036
Washers, steel	3,100 pounds	do	2036

METALS.

Aluminum	800 pounds	Puget Sd., Wash.	2036
Iron, pig	150 tons	Mare Island, Cal.	2036
Steel, sheet, galvanized	42,000 pounds	Puget Sd., Wash.	2036

PIPE, FITTING, CONDUIT, ETC.

Conduit and fittings	Miscellaneous	Puget Sd., Wash.	2035
Pipe, brass	5,800 pounds	do	2037

PROVISIONS, ETC.

Apricots, tinned	70,000 pounds	Mare Island, Cal.	2038
Beans, string, tinned	40,000 pounds	do	2038
Milk, evaporated	50,000 pounds	do	2038
Peaches, tinned	50,000 pounds	do	2038
Pears, tinned	20,000 pounds	do	2038
Prunes, tinned	20,000 pounds	do	2038
Raisins	15,000 pounds	do	2038
Salt	50,000 pounds	do	2038

STATIONERY.

Pencils, lead, black	45 gross	Mare Island, Cal.	2039
Pencils, drawing	20 gross	do	2039
Stationery	Miscellaneous	do	2039

OPENING, DECEMBER 28, 1909.

MISCELLANEOUS.

Boards, panel, and cabinets	3	Puget Sd., Wash.	2013
Hose, steam, 1/2-in. inside diameter, without couplings	500 feet	do	2016

HARDWARE AND TOOLS.

Files, miscellaneous	85 dozen	Puget Sd., Wash.	2015
Millboard, asbestos	9,000 pounds	Mare Island, Cal.	2015
Nails, steel wire, common	8,000 pounds	Puget Sd., Wash.	2015
Planes, miscellaneous	60	do	2015
Screws, machine, brass, R.H.	150 gross	do	2015

LUMBER.

Cedar, Port Orford, firsts	250,000 ft.	B.M. Puget Sd., Wash.	2014
Pine, Ore., merchantable	50,000 ft.	B.M. Mare Island, Cal.	2014
Pine, Ore., ship timber	25,000 ft.	B.M. do	2014
Pine, Oregon, flooring, No. 1		Mare Island, Cal.	2014
Poles, cedar, for drydock, wale shores	200	do	2014
Redwood, merchantable, No. 1	15,000 ft.	B.M. do	2014

PIPE, FITTINGS, TUBING, VALVES, ETC.

Tubing, brass, hard, seamless drawn	4,800 pounds	Mare Island, Cal.	2015
Valves, globe, check, etc., regrinding	59 dozen	Puget Sd., Wash.	2016

CLASSIFIED ADVERTISEMENTS

SHIPBUILDING AND ENGINEERING.

UNION IRON WORKS, 320 Market Street.

OIL BURNERS.

S. & P., 102 Steuart St. Phone Kearny 629.

BOAT BUILDERS.

JOHN TWIGG & SONS CO., Illinois St., near Eighteenth, S. F.
GEO. W. KNEASS, 18th and Illinois Sts., S. F.

SHIP PLUMBERS.

ANDERSON BAILEY, 216 Steuart St., S. F.

CONSIGNEES AND FORWARDING AGENTS.

PACIFIC EXPORTING CO., 245 California St., S. F.

MACHINES, MACHINE TOOLS, ETC.

Lathe, screw-cutting 36,000 ft., B.M. Mare Island, Cal. 2000
Machine, ice, and access-1 do 2000
series 1 do 2000

Article.	Quantity.	Delivered at Navy Yard.	Sch.
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THE FOLLOWING CHARTERS HAVE BEEN REPORTED

British bark Antiope, lumber, Eureka to Sydney. (Prior to arrival). American schooner A. J. West, lumber, Gray's Harbor to Santa Rosalia. American ship Governor Robie, lumber, Puget Sound to New York. British ship Gulf Stream, lumber, Portland to Cape Town at 55s. British steamer Claverley, coal, British Columbia to Guaymas or Mazatlan at \$5,000 for two trips. British tank steamer Trinculo, Pacific Coast trade on time charter to Union Oil Co. American schooner Honoipu, lumber. British Columbia to Suva, F. I., at 40s. (Prior to arrival).

U. S. R. C. Bear will be stationed at San Diego during the winter season. The revenue cutter McCulloch will be stationed at San Francisco.

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11 EAST STREET, OPPOSITE FERRY TREACY & SMITH, Props.
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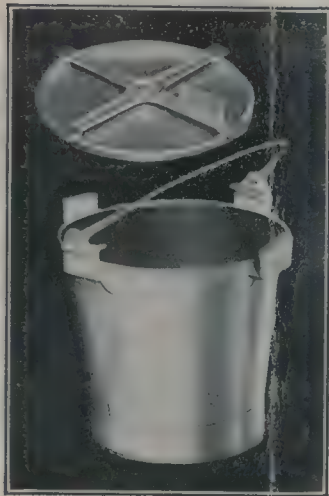
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